ASSESSMENT OF AWARENESS AND IMPACT STUDY OF IEC AIDS REGARDING GENDER HEALTH INEQUITY AMONG WOMEN OF JAWAN BLOCK, ALIGARH, U.P.

ABSTRACT

THESIS

SUBMITTED FOR THE AWARD OF THE DEGREE OF

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IN

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BY

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UNDER THE SUPERVISION OF

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ABSTRACT

The study entitled "Assessment of Awareness and Impact Study of IEC Aids regarding Gender Health Inequity among Women of Jawan Block, Aligarh, U.P." is categorized into six chapters.

The first chapter "Introduction" presents the brief description of issues on gender, health and IEC and further discusses the need and importance of study.

The second chapter "Review of literature" is an attempt to encircle the gender health inequity, IEC, demographic determinants and women's health indicates in earlier researches carried out in various parts of India and abroad.

The third chapter "Materials and methods" presents the detail of methodology used to achieve required objectives of the present study. It provides the detail of research design, locale, tools, study data, data processing and other essential aspects of conducting study.

The fourth chapter "Results" includes the findings based on the data collected from the field. It includes findings related to demographic characteristics, gender health inequity, impact of IEC, women's health and association between these variables.

The fifth chapter "Discussion" is based on interpretation of findings in the light of review of literature.

The sixth chapter "Summary and conclusions" gives the brief procedure and major findings of the whole study. The conclusions are drawn and overall suggestions are also described in this segment.

The study was conducted with the following objectives and hypothesis -

General Objectives

1. To assess the awareness regarding gender health inequity among women.
2. To ascertain the impact of IEC (Information Education Communication) aids on women.

Specific objectives

1. To study the demographic characteristics of women in study area.
2. To have an insight into the women's awareness and practices regarding gender heath inequities related to menstruation, marriage, reproduction, contraception and abortion
3. To evaluate the impact of identified and implemented IEC aids on gender health inequity among women.
4. To establish association between awareness regarding gender health inequity (pre IEC and post IEC) among women and demographic characteristics.
5. To establish association between practices of gender health inequity and health of women.

Hypothesis

1. Impact of IEC aids regarding gender health inequity on women is not significant.
2. There is no association between pre IEC awareness regarding gender health inequity among women and demographic characteristics.
3. There is no association between post IEC awareness regarding gender health inequity among women and demographic characteristics.
4. There is no association between practices of gender health inequity and health of women.

The study was conducted in Jawan Block of Aligarh district, U.P. A sample of 450 adult married women and in the age group of 18 – 40 years was targeted from selected gram panchayats using proportionate stratified systematic sampling. Information regarding demography, gender health inequity, health and IEC was collected through a interview schedule, observation, anthropometry, biochemical examination, clinical history and impact of IEC aids. Variable wise results are presented in the succeeding sections –

Demographic characteristics of rural women

- Majority of the rural women were from age 18 to 24 years and higher proportion of rural women had never been to school as compared to their husbands.
- Majority of rural women were not involved in any kind of occupation but majority of respondents' husbands were self employed.
- Majority of rural women belonged to nuclear family.
- Majority of rural women belonged to Hindu community. Majority of respondents were from schedule caste. Majority of respondents belonged to poor class.

Gender heath inequity among rural women and impact of IEC

Menstruation

- IEC aids had significant impact ($p < 0.01$) on rural women regarding awareness about menstruation as number of women was increased who were aware about physiological process of menstruation after IEC.
- IEC aids had significant impact ($p < 0.01$) on bathing practices among rural women as after IEC number of women was increased who bathed daily as compared to before IEC.
- During monthly menstrual cycle, before IEC, most of the rural women used old cloth without washing. After IEC most of the rural women started to use old cloth after washing ($p < 0.01$).
- Before IEC, majority of women changed daily menstrual absorbent and they did not reuse it. After IEC, more women started to change daily absorbent ($p > 0.01$).
- Before IEC, majority of women had restrictions on eating and performing household chores. After IEC most of the women had no restrictions ($p < 0.01$).

Marriage

- Majority of respondents got married between ages 15 to 17 and before IEC,

higher proportions of women were aware about right age of marriage while after IEC more women became aware about right age of marriage ($p < 0.01$).

- Majority of respondents did not favour early marriage. After IEC ($p < 0.01$), number of women was increased who were not in favour of early marriage.
- Before IEC, majority of the women were not aware about the effect of early marriage. After IEC ($p < 0.01$), most of the respondents became aware about stop development, weakness, early pregnancy death and disability and RTI/STD.

Pregnancy

- Before IEC, most of women considered two and three or more as the ideal number of children. After IEC, most of the women favoured of two children ($p < 0.01$).
- Before IEC, majority of respondents considered one boy and one girl as ideal gender composition children. After IEC, number of respondents was increased who considered one boy and one girl both as ideal gender composition ($p < 0.01$).
- Majority of rural women had more than three children.
- Before IEC, majority of women who did not know about the right age of first pregnancy became aware after IEC ($p < 0.01$).
- Majority of respondents' first pregnancy occurred before the age of eighteen. Majority of respondents had one pregnancy.
- Among majority of respondents' births of two children occurred within less than 18 months and among.
- Before IEC, majority of women who were not aware regarding the interval between births of two children after IEC ($p < 0.01$), more women became aware about it.
- Majority of women reported that their last pregnancy was wanted.
- Most of women became aware about bad consequences of closed birth interval after IEC as compared to before IEC ($p < 0.01$).

- IEC had significant ($p < 0.01$)impact on awareness about antenatal care among women as after IEC more women became aware about it as compared to before IEC.

- Majority of respondents got incomplete antenatal care for the recent live birth of their children and most of the rural women's deliveries were done at home.

- Before IEC, majority of women favoured home for delivery while remaining respondents were aware of hospital delivery. After IEC ($p < 0.01$), most of the women became aware of government hospital, private hospital, CHC for delivery.

Contraception

- Before IEC, rural women who were not aware about contraception, after IEC ($p < 0.01$), most of them became were aware about contraception.

- Before IEC majority of women who were not using any contraceptive, after IEC ($p < 0.01$), started to use contraceptives like female sterilization, male sterilization, contraceptive pills, IUD, injectable, condom, Rhythm.

- Reasons for not using contraception among women were husbands' disapproval, don't have need, not have information, non availability and feel shame.

- Significant impact of IEC was observed in decision making regarding use of contraceptives ($p < 0.01$). More women and their husbands started to take decision.

- Side effects of contraception among women were irregular menstruation, allergy, amenorrhea, lower abdomen pain and weakness.

- After IEC significant improvements were observed in sharing their problems related with husbands ($p < 0.01$). More women started to share their problems.

Abortions

- IEC had significant ($p < 0.01$)impact on opinion of abortion among women as after IEC most of respondents were not in favour of it as compared to pre IEC.

- Majority of respondents experienced none of the abortion, remaining respondents experienced one / two abortions.

- Reasons for seeking abortion among rural women was 'don't need any more daughter', 'don't need any more child and doctor's advice.

- Considerable proportion of women had sought pregnancy termination form private hospitals.

- Health problem faced by women who practiced abortion over a life time, were incomplete abortion, severe bleeding, chronic pain and infertility.

- IEC had significant ($p < 0.01$) impact on awareness about consequences of abortions on women's health as after IEC more women became aware about it.

Association between gender health inequity and demographic characteristics

- Significant association was found between age of women and pre IEC use of absorbent material, restrictions, number of children, birth interval, awareness regarding antenatal care, awareness and use of contraception, sharing problem at $p < 0.01$ and awareness regarding menstruation, awareness regarding age of marriage, gender preference, place of delivery, opinion on abortion at $p < 0.05$. Remaining variables were insignificant with age.

- Significant association was found between education of women and pre IEC awareness regarding menstruation, use and change of absorbents, awareness regarding age of marriage, opinion on early marriage, effect of early marriage, number of children, age of pregnancy, awareness regarding birth interval, antenatal care, place of delivery, opinion on abortion, consequences of abortions at $p < 0.01$, consequences of closed birth interval, restrictions, sharing problem at $p < 0.05$. Remaining variables were insignificant with education.

- Significant association was found between occupation of women and pre IEC use of absorbent material, awareness regarding age of marriage, gender preference, birth interval, use of contraception at $p < 0.01$, awareness regarding menstruation,

number of children, place of delivery, sharing problem at $p < 0.05$. Remaining variables were insignificant with occupation.

- Significant association was found between religion of women and pre IEC awareness regarding menstruation, bathing, use of absorbent material, restrictions during menstruation, effect of early marriage, birth interval and consequences of closed birth interval at $p < 0.01$, gender preference of child at $p < 0.05$. Remaining variables were insignificant with religion.

- Significant association was found between socio economic status of women and pre IEC awareness regarding menstruation, use of absorbent material, number of absorbents, awareness regarding age of marriage, opinion on early marriage, effect of early marriage, number of children, age of pregnancy, birth interval, awareness regarding antenatal care, place of delivery, consequences of abortions at $p < 0.01$, consequences of closed birth interval, awareness regarding contraception, bathing, sharing problem at $p < 0.05$. Remaining variables were insignificant with socio economic status.

- Significant association was found between age of rural women and post IEC use of absorbent material, number of absorbents, restrictions, opinion on early marriage, number of children in family, gender preferences of child, consequences of closed birth interval, use of contraception, sharing problem with husband at $p < 0.01$. While remaining variables were insignificant with age.

- Significant association was found between education of rural women and post IEC use of absorbent material, awareness on effect of early marriage, number of children, gender preferences, consequences of closed birth interval, antenatal care, use of contraception at $p < 0.01$, number of absorbents, place of delivery, bathing, opinion on abortion at $p < 0.05$. Remaining variables were insignificant with education.

- Significant association was found between occupation and post IEC and restrictions during menstruation, antenatal care, decision regarding contraception at $p < 0.05$, use of absorbent material, awareness on effect of early marriage,

number of children in family, gender preferences of child, birth interval, use of contraception, sharing problem with husband at $p < 0.01$. Remaining variables were insignificant with occupation of rural women.

- Significant association was found between religion of rural women and post IEC bathing, use of absorbent material, awareness on age at marriage, awareness on effect of early marriage, age of pregnancy, use of contraception at $p < 0.01$, restrictions, place of delivery, sharing problems, opinion on abortion at $p < 0.05$. While remaining variables were insignificant with religion.

- Significant association was found between socio economic status of rural women and post IEC awareness regarding use of absorbent material, awareness on effect of early marriage, number of children in family, gender preferences of child, birth interval, antenatal care, awareness of contraception, use of contraception, decision regarding contraception at $p < 0.01$, age of pregnancy, sharing problem at $p < 0.05$. Remaining variables were insignificant with socio economic status.

Health status of rural women and its association with gender health inequity

- Majority of rural women possessed normal BMI and majority of rural women had moderate anaemia. Women were suffering from pain in joints and backache followed by constipation, diarrhoea, fever, tuberculosis and menstrual problems like oligomenorrhoea, menorrhagia, delayed cycle, polymenorrhea, genital infection and lower RTI.

- Significant association was found between BMI of women and bathing and use of absorbents, age of marriage and pregnancy, number of pregnancies, birth interval, received antenatal care, place of delivery, use of contraceptives, sharing problem, practice and number of abortion, at $p < 0.01$, place of abortion at $p < 0.05$. Remaining variables were insignificant with BMI.

- Significant association was found between anaemia and number of absorbents at $p < 0.05$, number of children, age of pregnancy, number of pregnancies, birth interval,

received antenatal care, place of delivery, use of contraceptives, sharing problem at p < 0.01. Remaining variables were insignificant with anaemia.

- Significant association was found between common illnesses among respondents and number of absorbents at p < 0.05, number of children and pregnancies, birth interval, received antenatal care, place of delivery at p < 0.01. Remaining variables were insignificant with common illnesses among women.

- Significant association was found between menstrual problems and place of delivery at p < 0.05, restrictions, birth interval, number of pregnancies, number of children, practice of abortion at p < 0.01. Remaining variables were insignificant with menstrual problems among women.

- Significant association was found between RTI among rural women and use of absorbents, age of marriage, number of children, age of pregnancy, number of pregnancies, received antenatal care at p < 0.01, bathing at time of menstruation, practice, number and place of abortion at p < 0.05. Remaining variables were insignificant with RTI.

Conclusion

Study concluded that women of Jawan Block were not completely aware regarding gender health inequity. Women still hold traditional beliefs regarding menstruation, marriage, reproduction, contraception and abortion. IEC aids flip book, flash cards, posters, story cards, games were capable to provide knowledge and overcome the knowledge/practice gap. But, only when, integration of gender needs to be done from the planning stage - *Firstly,* identify and understand the issue of gender health inequity, *secondly* identification the socio – cultural reasons for this, *third* planning of actions. In this context and short duration of implementation; the changes achieved by the IEC aids were promising.

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2012

Dedicated to Women in My

Life

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Dated: 2:6:2012

Certificate

This is to certify that the thesis entitled, ***"ASSESSMENT OF AWARENESS AND IMPACT STUDY OF IEC AIDS REGARDING GENDER HEALTH INEQUITY AMONG WOMEN OF JAWAN BLOCK, ALIGARH, U.P."***, which is being submitted by **Ms. Tanuja Varshney** for the award of the degree of **Doctor of Philosophy in Home Science,** Faculty of Agricultural Sciences, Aligarh Muslim University, is a record of student's own work carried out by her under my supervision and guidance. The matter embodied in this thesis has not been submitted for the award of any other degree.

Saba Khan

Dr. Saba Khan
(Supervisor)

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Tanuja

(TANUJA VARSHNEY)

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ARTH	Action Research and training for health
ASHA	Accredited Social health Activist
AWW	Anganwadi Worker
BDO	Block Development Officer
BMI	Body Mass Index
CCAEE	Center for Continuing Adult Education and Extension
CHC	Community Health Centre
CHETNA	Centre for Health Education, Training and Nutrition Awareness
FP	Family Planning
GHI	Gender Health Inequity
HIV	Human Immunodeficiency Virus
ICMR	Indian Council of Medical Research
ICDS	Integrated Child Development Scheme (ICDS)
IEC	Information Education Communication
IIYI	Indian Institute For Young Inspirers
IFA	Iron and Folic Acid
IUCD	Intra-Uterine Contraceptive Device
IPC	Interpersonal Communication
JSY	Janani Suraksha Yojana
MASUM	Mahila Sarvangeen Utkarsh Mandal
NACO	National AIDS Control Organization
NRHM	National Rural Health Mission
OBC	Other Backward Caste
OPD	Outpatient Department
PHC	Primary Health Centre
RTI	Reproductive Tract Infection

SES	Socio Economic Status
SC	Sub Center
SC	Scheduled Caste
ST	Scheduled Tribes
STD	Sexually Transmitted Disease
STI	Sexually transmitted Infection
TT	Tetanus toxoid
WHO	World Health Organization


Chapter 1

INTRODUCTION

Women constitute around half of the population and play a distinct role in the development of our nation. As mother she shapes the personality and character of her children and thereby the character of her nation. As housewife she maintains productivity of the human capital and her household through proper home management. Apart from this, a woman herself represents a unit of human capital and is therefore capable of contributing to the economy of nation. Thus, unless women are mobilized towards contributing to the national development and growth, the nation is only half way towards development. It is the fact that women can not contribute meaningfully in the process of development, until their own development is taken care of (Sandhyavani, 2008). Recognizing the need for involving women in various developmental activities, the Government of India has initiated several affirmative measures by way of programmes and schemes to bring them into the mainstream of development. These affirmative actions have brought about perceptible changes in the socio-economic conditions of women. The literacy rate of females, which was 8.86% in 1951 rose to 54.16% in 2001. Women's work participation rate, which was 19.7% in 1981, rose to 25.7% in 2001 (NIPCCD, 2007). Though women in India have progressed in all fields like political, social, economic etc. yet the basic amenities like health and education are less focused. Major developmental tasks, focusing on women's health have been defined and emphasized with low efforts. Women have little access to productive resources and negligible control over health. This discrimination is the result of the gender bias which forms an inherent part of global society.

In the light of the above information, the present chapter of introduction discusses the concept of the study entitled "Assessment of Awareness and Impact Study of IEC Aids regarding Gender Health Inequity among Women of Jawan Block, Aligarh, U.P." The chapter carried out in following sections:

1.1 Women's health

1.2 Gender

1.3 Gender and women's health

1.4 Information Education Communication

1.5 Rationale of study

1.6 Significance of study

1.7 Objectives of study

1.8 Hypothesis of study

1.1 Women's Health

Health is wealth. According to the World Health Organization (WHO), health is a "state of complete physical, mental and social well being and not merely an absence of disease or infirmity" (Center for Health Education, Training and Nutrition Awareness, 2000). Despite having an idealized tenet in this definition in providing terms for a state of complete physical, mental and social well-being, it is in fact a positive definition and can be structured with a set of health attainment indicators for minimal elements and a set of health attainment indicators for enrichment of elements. In other words, indicators for absence of infirmity and disease should be first considered in order to define the health status in a given location. A generally important factor in the consideration of the status

of health in relation to the overall developmental process is the health among women and children in the total population (Velkoff & Adlakha, 1998). Examination of available data for Indian women reveals very disturbing facts. It has been pointed out that India is one of the few countries in the world where women and men have nearly the same life expectancy at birth. The fact that the typical female advantage in life expectancy is not seen in India suggests there are systematic problems with women's health (Velkoff & Adlakha, 1998; National Human Development Report, 2001). There is a deficit of at least 35 million girls and women in this country and it largely stems from higher mortality in females than males for every age group up to age 30 (Velkoff & Adlakha, 1998; The World Bank, 1996). Sixty four women out of hundred can not cross a BMI of 18.5 kg/m^2 and more than 50% women suffer from anaemia (National Human Development Report, 2001). A large section (~90%) of all pregnant women in India suffers from anaemia, and that severe anaemia accounts for 20% of all maternal deaths in India. The maternal mortality rate being at least 450 per 100, 000 live births among women in the age group 15 – 49 years (Velkoff & Adlakha, 1998; The World Bank, 1996). Severe anaemia increases the chance of dying from labour associated blood loss.

Health is multifactorial. The health of Indian women is intrinsically linked to a set of factors as biological determinants, behavioural and socio cultural conditions, socio economic conditions, environment and gender. However, all factors are responsible for shaping women's health but gender is more crucial. Gender is a powerful social determinant of health, which interacts, with other determinants such as age, family structure, income, education, social support and a variety of behavioural determinants. Gender differences help to shape the health of men and women by influencing their

exposure to various health risks, their access to health promoting resources and how they are treated by health services (Greaves, 2000). However gender can be conceptualized in various ways. Field *et al.*, (1997), for example, suggested that the body is mapped through culturally specific gendered identity, from biological sex. In this way gender is not driven by biology, but discursively constructed and masculinity can be enacted or performed by either men or women (Payne S, 2006).

1.2 Gender

Biologically, human societies are stratified into men and women dichotomies. All the known societies are unequally distributed (Pathy, 1987). There is some sort of identified division of labour between male and female in every kind of society. The biological division of humans into male and female is the basis of the most elementary social stratification everywhere (Mair, 1999). However, they represent only a part of the complex set of criteria by which it can be learn to distinguish femaleness from maleness. Equally important are the socially defined characteristics that different cultures assign to individuals defined as female and male *i.e.* gender. These apparent differences are sometimes justified with reference to biology, for example, women are given certain sorts of jobs for instance, because their biological capacity for motherhood is said to make them more 'caring'. In reality however, gender differences are social constructions that can potentially be changed in ways that most biological characteristics cannot (World Health Organization, 1998). The term gender describes those differences between men and women which stem from social causes; a social construct regarding culture bound conventions, roles and behaviours for, as well as relations between women and men and

boys and girls' (Krieger, Zierler, 1995). In 1978, Kessler and McKenna defined gender as the "psychological, social and cultural aspects of maleness and femaleness" in other words; it represents the characteristics taken on by males and females as they encounter social life and culture through socialization (Wharton, 2005). According to WHO "gender refers to women's and men's roles and responsibilities, which are socially determined". Gender is related to how we are perceived and expected to think and act as women and men because of the way society is organized, not because of our biological differences (World Health Organization, 1998).

1.2.1 Gender Roles of Women

Every society around the world assigns gender roles which direct activities and govern behaviour for women and men, girls and boys. Mediated by factors such as socio-economic level and other status differences between women and men in a given society, these gender roles exert various degrees of constraints. In general, the more rigid the gender role in a society, the sharper the gender division of labour and the lower the status accorded to women. The roles are rooted in rational responses to a lifestyle, no longer adapted to the forces of social change sweeping the world. The roles expected of women to behave and respond in a particular way according to Moser C., 1993 are categorized as:

- Productive roles
- Reproductive roles
- Community roles

Productive Roles: The productive role comprises work done by both women and men for payment in cash or kind. It includes both market production with an exchange value and

subsistence / home production with an actual use value and also of a potential exchange value. For women in agriculture production this includes work as independent farmers, peasants' wives and wage workers. Whereas the ideology of patriarchy has served to reinforce the popular stereotype the male breadwinner, reality does not bear this out. Throughout the third world most low income women have an important productive role. Nevertheless, the rigidity gender divisions of labour have ensured that although this is the one area in which both men and women work, they do so unequally. Ideologically masked asymmetrical gender relations in productive work, whether it is in the formal or informal sector, rural and urban production means that again women as a category are subordinated to men.

Reproductive Roles: The reproductive role comprises the child bearing/rearing responsibilities and domestic tasks undertaken by women, required to guarantee the maintenance and reproduction of labour force. It includes not only biological reproduction but also the care and maintenance of the workforce (husband and working children) and the future workforce (school – going children). The reproductive role is naturally considered women's work because women bear children and that connects naturally to the reproduction of all human life. There is no reason why this should extend to the nurturing and caring, not only of children but also for adults, if they are sick or aged, through the daily provision of range of domestic services. This contradiction reflects the diversity of definitions and meanings of reproductive work.

Community Management Roles: The community managing role comprises activities undertaken primarily by women at the community level, as an extension of their reproductive role. This is to ensure the provision and maintenance of scare resources of

collective consumption, such as water, health care and education. It is voluntary unpaid work, undertaken in 'free time'. The community politics role in contrast comprises activities undertaken by men at the community level organizing at the formal political level. It is usually paid work, either directly or directly, through wages or increase in status and power.

1.3 Gender and women's health

The distinct roles and behaviors of men and women in a given culture, dictated by that culture's gender norms and values, give rise to gender differences in access to health among women. Both gender differences and gender inequalities can give rise to inequities between men and women in health status and access to health care. Gender inequities determine much about the health risks a woman faces in her life, her knowledge, her vulnerability, personal resilience, capacity, self-confidence and access to social support systems which help her to deal with health problems as they arise. Many of these practices are, as can be seen, in the area of sexuality, biological reproduction and the life cycle. Brief introduction of these practices has been given below:

1.3.1 Access to food

Girl child are deprived of adequate nutrition. Girl infants are breastfed less frequently, for shorter durations and over shorter periods than are boys (Das *et al.* 1982; Khan *et al.* 1983). Weaned earlier, young girls may not get the required quantities of supplementary food, as described by Levinson (1974). Male children receive larger quantities of cereals, fats, milk and sugar than females. Further, even in households that theoretically have enough food, the way it is distributed may leave women inadequately nourished.

Typically adult man and male children are fed first, women eat only after the men have finished and young wife must allow her mother in law to eat first, whatever is left is divided among young mother and her female children.

1.3.2 Physical Mobility

Women's mobility and activities are curbed and they are expected to learn to become submissive and dependent. They are also expected to become self - sacrificing in relation to other family members, especially husbands and children. Traditions and sociocultural norms can encourage women's seclusion or result in restricted mobility. Reasons for restrictions on women's mobility lie in the tradition of male guardianship or in the male perception of the necessity of protecting women. A survey conducted in Punjab, Pakistan, revealed that only 35% of women were allowed to go unescorted to a market in their village, 28% were allowed to attend health centers unescorted and only 12% were allowed to visit neighbouring villages unescorted. On a mobility index with a maximum value of 5, the women of Punjab were assigned 1.4 value (World Health Organization, 2007)

1.3.3 Menstruation

Monthly menstruation has been socialized and mythologized into being the unquestioned natural, normal and beneficial state for women. It is therefore no wonder that throughout history, menstruation has been assigned roles that ranged from defining a woman's status and social role to being seen as a curse that womankind had to endure. No aspect of female physiology seems to be as a shrouded in mystique as is that of a women's menstrual cycle. In many societies, ironically, practices surrounding notions of purity and

hygiene are often harmful to the health of girls and women including the management of menstrual hygiene.

1.3.4 Marriage

Significant numbers of girls in the developing world are married before they reach adulthood. Marriage too early can prevent them from accessing health services or attaining educational, economic, or social opportunities. Historically, early marriages have been used to secure critical social, economic and political alliances for families or clans (McIntyre, 2006; ICRW, 2005). The Universal Declaration of Human Rights recognizes the right to "free and full" consent to a marriage, acknowledging that consent cannot be "free and full" when one of the individuals involved is not sufficiently mature to make an informed decision about a life partner (UNICEF, 2005). Hence, early marriage is considered a human rights issue. Nonetheless, in many developing countries, particularly in poorer rural areas, girls are often betrothed or committed to an arranged marriage without their knowledge or consent. Such an arrangement can occur as early as infancy. Parents see marriage as a cultural rite that provides protection for their daughter from sexual assault and offers the care of a male guardian (McIntyre, 2006). Many parents often feel that a young girl is an economic burden and therefore wish to (Levine, Lloyd, Greene, & Grown, 2009) marry off their young daughters before they become an economic liability (McIntyre, 2006).

1.3.5 Reproduction

Women have been born with unique but a complex phenomenon to take the progeny ahead. But unsafe reproductive behaviour like early pregnancy can have harmful

consequences for both young mothers and their babies. According to UNICEF (2005), no girl should become pregnant before the age of 18 because she is not yet physically ready to bear children. In many parts of the developing world, especially in rural areas, girls marry shortly after puberty and are expected to start having children immediately. Although the situation has improved since the early 1980s, in many areas the majority of girls under 20 years of age are already married and having children. Those who start having children early generally have more children, at shorter intervals, than those who embark on parenthood later. Generally throughout the developing world, the average food intake of pregnant and lactating mothers is far below that of the average male. Cultural practices, including nutritional taboos, ensure that pregnant women are deprived of essential nutrients and as a result they tend to suffer from iron and protein deficiencies. Most rural areas throughout the developing world have disproportionately fewer health centers and clinics, trained midwives, nurses and doctors than urban areas. For most rural dwellers, health treatment obtained from traditional birth attendants. Most traditional birth attendants have no formal training in health practices but acquire their skills via apprenticeship. According to the World Health Organization (WHO), more than half the births in developing nations are attended by traditional birth attendants and relatives. Although these women have every good intention to assist their patients, mortality rates are higher in the rural areas where they operate.

1.3.6 Access to health care among women

Adult women and female children are at a disadvantage with respect to health care. One reason for the relatively high mortality rates among women is that women receive less medical care than men. A high proportion of women receive no treatment at all for their

illnesses and that among who do, self care home remedies and traditional medical care are most common method used. In contrast, men are more likely to receive modern medical treatment including high quality institutional care. Compared with the men, women also tend to receive care at later stages of an illness, even in case of life threatening conditions. Additionally, households tend to spend less on women's health than on men's health (Center for Health Education, Training and Nutrition Awareness, 2000).

1.3.7 Contraception

In many cases, it is the woman who has to deal with the consequences of being sexually active with regards to contraception, child bearing and caring. Although women are often held responsible for unplanned pregnancies, young women are often stigmatized for using contraception. This double standard can put women at risk and discourage them from protecting themselves. Because most methods of contraception are controlled primarily by the woman, men often feel left out of the responsibility of contraceptive use. They feel uncomfortable discussing and participating in contraceptive decisions. Women, on the other hand, assume that their male partner is reluctant to use contraception without discussing it with him (Center for Health Education, Training and Nutrition Awareness, 2000).

1.3.8 Abortion

In India, abortion has been legal for decades but access to competent care remains restricted because of many barriers. But, unsafe abortion is an urgent public - health and human - rights imperative. As with other more visible global-health issues, this scourge

threatens women throughout the developing world. Every year, about 19 – 20 million abortions are done by individuals without the requisite skills or in environment below minimum medical standards or both. Nearly all unsafe abortions (97%) are in developing countries. An estimated 68,000 women die as a result and millions more have complications, many permanent. Important causes of death include haemorrhage, infection and poisoning (Grimes, *et al.*, 2006).

1.3.9 HIV / AIDS

Almost as many women as men are now dying of AIDS. However, there are important differences between women and men in the underlying mechanisms of HIV /AIDS infection and in the social and economic consequences of HIV / AIDS. These stem from biology, sexual behaviour and socially constructed 'gender' differences between women and men in roles and responsibilities, access to resources and decision-making power. A number of studies have examined the role of gender on women's risk and vulnerability to HIV / AIDS (WHO, 2003).

In each of these cases (menstruation, marriage, reproduction, contraception, abortion etc.), gender norms and values and resulting behaviours, are negatively affecting health of women. Therefore, above practices can be considered as ***Gender health inequity*** as all of the practices are responsible for making women vulnerable to health concerns. Gender health inequities are not fixed. They evolve over time, vary substantially from place to place and are subject to change. They can be changed. Health communication strategies help to foster these practices individually and institutionally and can contribute to sustainable change toward healthy behaviour. Largely concerned with individual behaviour

change or reinforcement and/or changes in social or community norms, public health education and communication seek to empower people vis-à-vis their health actions and to garner social and political support for those actions (WHO, 2001).

1.4 Information Education Communication

Information Education Communication in health programmes aims to increase awareness, changes attitudes and bring about a change in specific behaviour. IEC means sharing information and ideas in a way that is culturally sensitive and acceptable to the community, using appropriate channels, messages and methods. It is therefore broader than developing health education materials because it includes the process of communication and building social networks for communicating information. IEC is an important tool in health promotion for creating supportive environments and strengthening community action, additionally, to play an important role in changing behaviour. These initiatives are grounded in the concepts of prevention and primary health care. IEC can be defined as an approach which attempts to change or reinforce a set of behaviours in a "target audience" regarding a specific problem in a predefined period of time. It is multidisciplinary and client - centered in its approach, drawing from the fields of diffusion theory, social marketing, behaviour analysis, anthropology and instructive design. IEC strategies involve planning, implementation, monitoring and evaluation (WHO, 2001).

1.4.1 Channels in use for IEC

Information Education Communication (IEC) combines strategies, approaches and

methods that enable individuals, families, groups, organizations and communities to play active roles in achieving, protecting and sustaining their own health. Health information can be communicated through many channels to increase awareness and assess the knowledge of different populations about various issues, products and behaviours. It can be broadly discussed as:

a) IEC Methods

b) IEC materials

a) IEC Methods: According to the National Health Education, Information and Communication Centre, 2003, IEC methods has been described as follows:

- Interpersonal communication
- Group communication
- Mass communication

Interpersonal communication, sometimes called face to face communication, is one of the most effective methods of communication. Interpersonal communication can be done on one to one basis or with small groups and can promote sharing of information, encourage dialogue and help people to make their own decisions. The communication channels are in use to reach our target audience with predetermined formats at each service delivery. Interpersonal network is significantly effective in each stages of behavioral change. In the initial step to make the target audience aware of their health needs and impart knowledge to them, there are important messages. This approach is meaningful at the most secondary stage when the target audience to be motivated to go to practice healthy behavior.

Group communication such as seminars, workshops, coordinating meetings and social gatherings are more appropriate to advocate decision-makers and encourage supporting organization to come forward in sharing partnership. Moreover, there has been substantial use of all forms of methods and media in the health services delivery, for example:

- Personal- self - learning and personnel letters
- Person to person – discussion, counseling, office calls, tutorials, home visits
- Group (person to group, group to group and intra-group) – Lecture, meeting, study tours, discussion, tutorials, home visits, demonstrations, play/drama etc.

Mass Communication usually involves a much wider audience and employs mass media methods to reach out to large number of people at one time rather than personal interaction. Similarly, news, drama, serials, jingles and talk shows are radio programs that are used for IEC programme. Indigenous and folk performances are most effective means of influencing people's knowledge, attitude and behavior if developed, managed and performed effectively in an appropriate formats *i.e.* folk singing, folk drama, folk dances, street drama and local cultural events etc.

Interpersonal and mass communications play different but complementary roles in IEC. Conventionally, the IEC approach is used in the field of health for creating awareness, increasing knowledge, changing attitudes and moving people to change their behaviour or adapt an innovation.

b) IEC materials: IEC materials bring together all of the tools and techniques for communication and group work used to promote and assist behaviour changes.

According to AMC Cancer Research Center, 1994, IEC material is categorized into four categories:

- Visual Materials
- Action - Oriented Exercises
- Audio Materials
- Audio Visual Materials

Visual Materials: Visual materials help people learn by seeing. Visuals can, but do not always, contain words, pictures and/or numbers, but if words are displayed, they are not the emphasis of the medium. Different visual materials include posters, flip charts and display boards have been described in table 1.1.

Table 1.1 Visual materials

Type	Benefits	Limitations
Poster	Stands-alone. May be distributed and posted in a variety of settings.	Typically informational and does not generally influence behavior change.
Flip Chart	Tells a story or teaches skills in a step-by-step manner. May be used as a guide for presentations by trained facilitators.	Requires a trained facilitator. Not appropriate for larger audiences.
Talk Board	Enables learners to share experiences through the telling of a story.	Requires a trained facilitator. Can be time-intensive because of the experiential-based interaction that use creates.
Display Board	Involves the learner	Involves the learner

Source: AMC Cancer Research Center, 1994

Visual materials are particularly useful for people with limited literacy skills and people from oral cultures. For low - literate individuals, even the simplest text sometimes cannot be understood. Low - literate individuals, therefore, tend to be more dependent on graphic or visual information than on information provided through print media.

Table : 1.2 Action Oriented Exercises

Type	Benefits	Limitations
Role play	Can bring learning close to real life. Requires few props or special objects.	Used exclusively in a group session. More than one person takes part in the role play itself.
	Learners can represent objects through pantomime. Useful for developing practical and social skills.	Requires audience participation in a group activity.
Song	Easy for most people to remember songs and rhymes and effective for reaching communities.	Requires someone skilled in song-writing to write lyrics and music.
	Does not require reading or writing skills. Requires few resources to develop.	Requires someone willing and able to lead a group in song.
Story - telling	May take less preparation time. Learners can tell their own stories that are related to the topic of discussion.	Requires a group setting and a trained facilitator and can be time-consuming.
	Can teach lessons through the use of parables.	Requires a storyteller who is aware of community patterns, customs, beliefs, and traditions.
Games	Provides entertainment. Encourages interaction among the learners, providing peer support. Can involve a group of participants of different ages.	Use of symbols must be handled carefully as symbols often have specific meanings in different cultures. Requires audience participation.

Source : AMC Cancer Research Center, 1994

Action-Oriented Exercises: Table 1.2 described different action oriented exercises. Action-oriented exercises or strategies can be defined as educational materials and

methods that require the learners to be actively involved. These exercises include role play, theater, songs, storytelling, and games. Action-oriented strategies are particularly useful with low-literate audiences because they engage the audience in the simulation of real-life situations. The learner is relating, interacting and formulating relationships with others while acting out a situation.

Audio Materials: Audio materials rely upon hearing. They are useful when an audience has limited reading and/or visual capabilities. Different audio materials have been described in table 1.3.

Table 1.3 Audio Materials

Type	Benefits	Limitations
Audiotapes	Does not rely on the printed word or visuals which can be misinterpreted by the intended audience. Can use sound effects to enhance the message and can use local language, and references which enhance the listener's ability to identify with the message contained on the tape. Accessible to a large audience.	Language used on the tape and the language skills of the audience. May be "tuned out" by the intended audience if there are no visuals to watch. Requires equipment for production.
Radio Docudrama	Very entertaining. Does not rely on the printed word or visuals to relay a message. Can use local language and slang which help listeners to identify with the message and can use music to attract attention.	Requires commitment on the part of a local radio station to play the docudrama during times that the intended audience is listening. Requires good sound equipment for production.

Source: AMC Cancer Research Center, 1994

Audiovisual Materials: Audiovisual materials involve both hearing and sight. Since most people learn through visual communication, audiovisual materials effectively increase knowledge. In addition, by visually representing a desired behavior, audiovisual material can teach a learner how to perform a behavior. The audio portion can add several dimensions, including motivating the viewer to watch the presentation, increasing identification with the characters or message, and helping the viewer retain the information. Different audio visual materials have been described in table 1.4.

Table 1.4 Audio Visual Materials

Type	Benefits	Limitations
Videotapes	Can include issues and topics that are culturally acceptable to the intended audience. The language, dialect, characters, and scenery used in a videotape can help the viewer to identify with the message or story being conveyed. Can be used in group settings when appropriate equipment is available. Can be used as "triggers" for group discussion.	Are expensive to produce. Many learners are exposed to high quality video media which places a demand for high quality videotapes. Requires production equipment, VCR and monitor to use and trained facilitator.
Slide-tape Programs	Appeals to both hearing and visual senses and does not rely on the printed word to get message across. Use of visuals can be specific to the intended audience. Can be used in a group setting or as a stand-alone.	Are less sophisticated than videotapes, so that audiences may be less satisfied with them. Requires an automatic advance slide-projector and screen.
Interactive Multimedia Programs	Can be fun to use. Provides learner opportunity to choose topics or receive responses to questions which enhance thought processing and motivation to continue with the lesson.	Requires self-motivated learners to approach and use the program and some computer literacy on the user's part.

Source : AMC Cancer Research Center, 1994

1.4.2 IEC in health programmes in reference to gender and health

Health education and promotion has been an integral component of all national health and family welfare programmes. Information Education and Communication (IEC) efforts in health go back to mid twentieth century after the independence of the country. Government of India has been using electronic media like television, radio, and folk media to promote family planning and a number special health care programmes like leprosy eradication, control of blindness, tuberculosis, malaria, filaria, iodine disorders/ deficiencies and most recently HIV/ AIDS. National Family Health Survey (2005 - 2006) reported that among the different types of media, television and radio have the broadest reach across all categories of women. Overall 55 percent of ever-married women watch television at least once a week. However, among women, the next most common media source is the radio (International Institute of Population Sciences, 2007).

National health programmes are supported with health education and promotion strategies and activities specifically designed to suit programme needs. Such national programmes include those for leprosy eradication, tuberculosis control, malaria eradication and HIV/AIDS control, as well as the national iodine deficiency disorder programme and the environmental health and sanitation programme. Interministerial committees at central and state levels meet periodically to review the progress of health education activities. NGOs and other professional organizations have joined with government agencies all around the country to improve health education. The media division of the CHEB has been strengthened to support media promotion activities as well as materials production.

Information Education Communication in different health programme has been given below:

The IEC approach uses a community-based strategy. In India, interpersonal communication at grass roots level is being strengthened by establishing women's health organizations (*Mahila Swasthya Sangh* - MSS) in villages existing national health policy (NHP), 1983. By 1995-96, 74,000 MSSs had been established. Funds were earmarked for setting up IEC bureaus in eight states in 1995-96. Training of frontline workers and field functionaries in various departments is being strengthened. The sensitization of local leaders is implemented through orientation training camps.

The National AIDS Control Programme in India has been advocating behaviour change with various innovative approaches and strategies that target audience-specific messages to identified subpopulations. HIV/AIDS prevention programmes focus their efforts and messages on promoting three prevention behaviours: delaying sexual debut among young persons (abstinence), limiting the number of sex partners/staying faithful to one partner (being faithful) and use of condoms (the ABC message). Overall, approximately 4 in 10 women know each of the three ABC methods. Forty five percent of women who have regular media exposure know about avoiding HIV by using condoms and limiting sexual intercourse to one uninfected partner, compared with only 10 percent of women who are not regularly exposed to media (International Institute of Population Sciences, 2007).

The Information, Education and Communication (IEC) strategy under the NRHM, aimed to spread awareness on the preventive aspect of healthcare and disseminate information regarding availability of and access to quality healthcare for the poor, women and

children in rural areas. The Ministry had been implementing a comprehensive IEC package for publicity through extensive use of television, radio and other media with the help of the Song and Drama Division, Directorate of Advertising and Visual Publicity and Directorate of Field Publicity of the Ministry of Information and Broadcasting. In addition, hoardings in rural areas, advertisements in print media and printed material in regional languages by the States were also being utilized for IEC activities. But, awareness about the Janani Suraksha Yojana is low in some states particularly among rural women. Communication is not focused on emphasizing on importance of institutional delivery.

The communications media have played an important role in promoting the family welfare programme in India. In 1968-69, the Mass Education Media (MEM) division was created in the Department of Family Welfare. Channels of communication such as the Television, Radio, Song and Drama Division, Directorate of Field Publicity, and the print media promote reproductive health and population issues. Slightly more than three in five women reported that they heard or saw a family planning message in the past few months. Nearly half of women saw a family planning message on television; one-third heard a family planning message on the radio; about one-quarter saw a family planning message on a wall painting or hoarding; and percent saw a family planning message in a newspaper or magazine. The substantial gender exposure to family planning messages is seen with widening of the horizon of understanding on issues related to contraceptive use and helping to achieve desired family size (International Institute of Population Sciences, 2007).

Many of the existing IEC (Information, Education, and Communication) materials are not sensitive to women's needs. Listen to what women have to say about health and what they would like to know about it, rather than simply transferring information to them. Develop culturally appropriate women sensitive and specific IEC material, which would take into account on issues regarding women's health (Choudhary & Shelley, 2000).

1.5 Rationale of the study

Present research particularly focuses on awareness and practices of gender health inequity and impact of IEC on rural women. India's National Health Policy 2002 acknowledges the importance of women's health as a major determinant of the health of entire communities. Infect, on their health rests the well being of the future generations. In terms of resources for socio-economic development, nothing can be considered of higher significance than the health of women. Additionally, women's health particularly sexual and reproductive health is also a fundamental aspect to reach gender equity the third millennium development goal. Though, India was signatory of Alma Ata Declaration in 1978 recommending "Health for All by A.D. 2000". The 20- point programmes also pin points special thrust on improving the women's health but significant gains in health status of women have not been achieved. Further, the gender stigmas such as abortions, early marriage, dowry, low educational attainment among female are increasing day by day in U.P. especially in rural areas. All of them lead to lower participation of women in economic activities and restricted physical mobility which affects the women's health. The third Goal of Millennium Development urges the achievement of gender equity. Therefore, in order to fulfill the global commitment,

gender equity is essential. Furthermore, gender equity is also needed for rapid achievement of other Millennium Development Goals (MDG) such as: reducing child mortality, improving maternal health, achieving universal primary education, combating HIV/AIDS and reducing poverty. In the Gender Development Index (GDI), India ranks 114 out of 155 countries (Times of India, 2010). Keeping in the view, gender and women's health as major indicators of nation's development, present study focuses on assessment of awareness regarding gender health inequity among women.

Women's health depends not only on range of gender based factors but it is affected by women's consciousness that enables one to overcome external barriers for accessing resources or changing traditional ideology to attain better health. Both of them are essential 'first steps' for being healthy women because no amount of outsiders' help can really achieve the desired results unless women themselves realize the importance of these issues for them. So there is urgent need for a 'behavioral change' among them by increasing awareness or consciousness regarding gender health inequity. In the light of the above information, a procedural assessment criterion has been involved in the study wherein IEC were used for creation of awareness. In recent years, the need for such kind of studies is very important.

Although there is a range of material available, which offer general assistance in considering gender issues in developmental practice and few refer specifically to the issues, which are most relevant to health issues such as the impact of gender health inequity on women's health or the impact of IEC have yet received little attention. Secondly, most of them were based on secondary data on national surveys. Therefore, in

present study the primary data was used by designing own interview schedule rather than depending on the specific questionnaire.

The above premises were major considerations for the researcher to assess awareness and practice regarding gender health inequity among women before and after implementation of IEC. These considerations make the study relevant in both the current and past contexts of the need to improve women's life in present and future.

1.6 Significance of Study

Present study will be helpful for gaining an understanding on women's knowledge on gender health inequity. Appraisal of the progress of a region in the field of gender studies can be made time to time with the help of such studies. In the study, consideration of health lead to a better understanding of many areas of women's health and wellbeing including policy approaches to planning and provision of health services. This would be helpful in the local level planning suitable to the health needs of women. Studies of this kind ultimately lead to remedial interventions. They help to evolve short term and long term policies. The study will be useful to policy makers and development specialists in national institutions, NGOs and donor agencies engaged in gender, health issues among women especially in rural areas.

As an impact study of IEC aids, this approach will be concerned with changes or reinforcement in women's knowledge towards gender practices seek to empower women vis-à-vis their health actions and to garner social and political support for those actions. In this way, it is an effort to make valuable contribution to the community.

Planning and implementation of IEC will be helpful for the media planner and organizers to plan and implement the future IEC strategies and to incorporate the different concepts and themes in strategy to meet the information needs of the rural community. Further, evaluation of various IEC aids would be useful for various local, regional, national and international organizations engaged in community need assessment programmes. In view of these beneficial outcomes and because of the fact that no such awareness approach has ever been conducted in this region, the study was conducted in Jawan block of Aligarh District.

The present study is not an end in itself; rather it is an attempt to observe health problems faced by rural women due to gender health inequity in their lives and to introduce various IEC aids to rural women so that they can understand their health needs, that can be used as guide line for future researches of this field and contribute to the vision contained strategic direction towards health for all.

1.7 Objectives of the study

General Objectives

1. To assess the awareness regarding gender health inequity among women.
2. To ascertain the impact of IEC (Information Education Communication) aids on women.

Specific objectives

1. To study the demographic characteristics of women in study area.

2. To have an insight into the women's awareness and practices regarding five gender heath inequities - menstruation, marriage, reproduction, contraception and abortion.

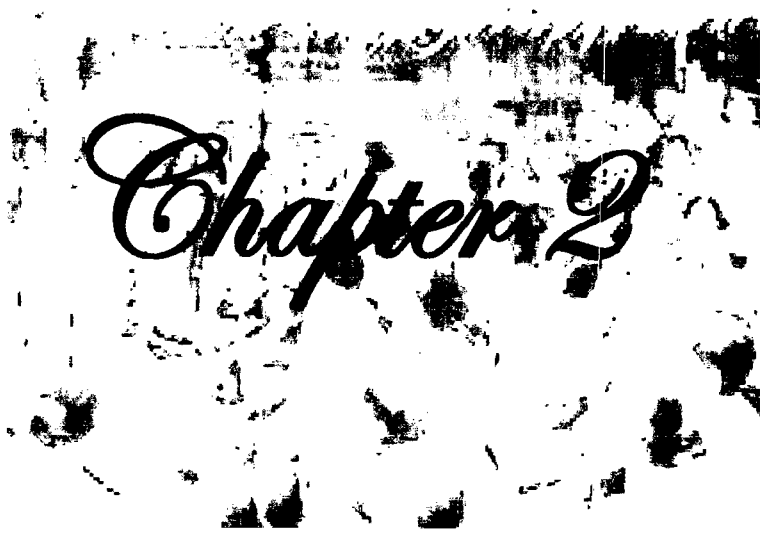
3. To evaluate the impact of identified and implemented IEC aids on gender health inequity among women.

4. To establish association between awareness regarding gender health inequity (Pre and post IEC) among women and demographic characteristics.

5. To establish association between practices of gender health inequity and health of women.

1.8 Hypothesis of study

1. Impact of IEC (Information Education Communication) aids regarding gender health inequity on women is not significant.
2. There is no association between pre IEC awareness regarding gender health inequity among women and demographic characteristics.
3. There is no association between post IEC awareness regarding gender health inequity among women and demographic characteristics.
4. There is no association between practices of gender health inequity and health of women.


Chapter 2

REVIEW OF THE LITERATURE

Women's health is affected not only by their biological differences from men, but also by gender - based inequities. The significance of gender inequities for women's health was underscored at two United Nations conferences: the 1994 International Conference on Population and Development (ICPD) in Cairo and the 1995 World Conference on Women in Beijing. These conferences recognized women's physical, emotional, and social well-being as a human right and as an essential element of sustainable development. It has been developed as an important area of social research of present times. Realizing the complexity of gender and women's health for Indian rural women, there is a need to adopt such measures that help women to find culturally appropriate ways to change existing beliefs, attitudes and social norms that restrict gender equity. Information Education Communication can reinforce this. These approaches markedly affect the understanding and acceptance of new health behaviors and revised gender perspectives.

The literature in this area is voluminous and it is difficult to review it completely. Hence, it has been attempted here to review major and relevant studies on gender health inequity among women and Information Education Communication conducted in India and other countries. The studies that have direct or indirect relevance to the present study are taken to priority. The review of literature includes studies reported in the literature derived from the academic texts, research reports and academic journals, publications professional bodies such as social worker associations, annual reports, departmental documents, research reports etc. It provides a background to the current study that considers many

aspects such as theoretical background, methodology, previous findings, rationale and relevance. Further, studies are also subjected to critical analysis to reveal the concepts, theories and underlying assumptions on which their various claims and viewpoints are based. Present chapter is categorized into five sections:

2.1 Studies on demographic characteristics of rural women

2.2 Studies on gender heath inequity among rural women

2.3 Studies on gender health inequity and IEC (Information Education Communication)

2.4 Studies on association between gender health inequity and demographic characteristics

2.5 Studies on women's health status and its association with gender health inequity

2.1 Studies on demographic characteristics of rural women

Demographic characteristics are useful to consider the possible areas of diversity in a target sample. It is a general science that can be applied to any kind of dynamic human population. Previous studies on demographic characteristics of rural women are reviewed in following sections -

2.1.1 Age

2.1.2 Education

2.1.3 Occupation

2.1.4 Type of family

2.1.5 Religion and caste

2.1.6 Socio economic status

2.1.1 Age

An extensive study on "Contraceptive practices among women in rural communities in South-Western Nigeria" was conducted by **Al Olugbenga-Bello *et al.* (2011).** In their study, they reported that more of the respondents were in the age range of 35 years and above (29.2%) followed by 20 to 29 years (25.3%).

Garg Rajesh *et al.* (2010) in their research on "Study on delivery practices among women in rural Punjab" investigated the demographic profile of 1000 respondents and showed that majority of respondents (42.3 %) were in the age group of 26 – 35 years.

Study by **Ye Yang *et al.* (2010)** on "Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang Province, Lao PDR", found that majority of respondents (72.6%) belonged to the 17–35 years old age group.

Joshi N. *et al.* (2009) in their study on "Nutritional education tool to improve overall dietary attitude and knowledge among young women" provided demographic characteristics of the women and depicted that all were rural women aged between 20 and 31 years.

Mustafa R. *et al.* (2008) in their study on "Contraceptive knowledge, attitude and practice among rural women" reported that the majority of respondents (53%) belonged to the age group of 21 – 30 years.

Mao J. (2007) in the study on "Knowledge attitude and practice of family planning: A study of Tezu Village, Manipur (India)" found that the current age of the married women

ranged from 20 - 40 years. Most of (48 %) of these women were in the age group of 20 - 25 years.

Bhandari G.P. *et al.* (2006) in their study on "Prevalence and determinants of unmet need for family planning in a district of eastern region of Nepal" indicated that about 47% of the women were concentrated in the prime reproductive ages of 20- 29 years.

2.1.2 Education

AI Olugbenga-Bello *et al.* (2011) in their study on "Contraceptive practices among women in rural communities in South-Western Nigeria" reported that more of the respondents had secondary school education (50.7%).

Garg Rajesh *et al.* (2010) in their work on "Study on delivery practices among women in rural Punjab" investigated the demographic profile of 1000 respondents and showed that education-wise, most of respondents were (41.0 %) were illiterate.

Study by **Ye Yang *et al.* (2010)** on "Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang Province, Lao PDR", found that most of the respondents (33.9%) had no schooling.

Joshi N. *et al.* (2009) in their study on "Nutritional education tool to improve overall dietary attitude and knowledge among young women", provided demographic characteristics of the women and depicted that around 8% of the women were illiterate; remaining had a minimum primary level of education.

Mustafa R. *et al.* (2008) in their study on "Contraceptive knowledge, attitude and practice among rural women" reported that the majority of respondents (90%) of rural women were completely illiterate, only 10% had primary education.

Varma G.R. *et al.* (2007) in their research on "Son preference and desired family size in a rural community of West Godavari District, Andhra Pradesh, India," observed that majority of them were illiterate (40%) followed by 32.5 % of respondents had secondary education and 27.5% of rural women were primary educated.

Mao J. (2007) in the study on "Knowledge attitude and practice of family planning: A study of Tezu Village, Manipur (India)" found that 24% of the women were illiterate, 54% of them did their matric; 14% were undergraduate; remaining were higher educated.

Bhandari G.P. *et al.* (2006) in their study on "Prevalence and determinants of unmet need for family planning in a district of Eastern Region of Nepal" indicated that 43% of women were literate, with a share of only 13% in secondary education, whereas 66.4% of the husbands were literate, with approximately half in the secondary education.

2.1.3 Occupation

Garg Rajesh *et al.* (2010) in "Study on delivery practices among women in rural Punjab" investigated the demographic profile of 1000 respondents and showed that majority (91.3%) of the respondents were housewives.

Study by **Ye Yang *et al.* (2010)** on "Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang Province, Lao PDR", found that most of the respondents (68.4%) were farmers.

Varma G.R. *et al.* (2007) in their research on "Son preference and desired family size in a rural community of West Godavari District, Andhra Pradesh, India," observed that most of the respondents (80%) were agriculture laborer.

Mao J. (2007) in the study on "Knowledge attitude and practice of family planning: A study of Tezu Village, Manipur (India)" found that majority of women (50%) were farmer, 24% were into business, 16% were housewives and 10% were working in offices and as teachers in schools and colleges.

2.1.4 Type of Family

In the study by **Rao K. *et al.* (2010)** entitled "Diet and nutritional status of women in India", found that the 63.5% of rural women were from nuclear family. Only 18.4 % and 18.2% of rural women were belonged to joint and extended nuclear families.

2.1.5 Religion and caste

Study on "Contraceptive practices among women in rural communities in South-Western Nigeria" was conducted by **AI Olugbenga-Bello *et al.* (2011).** In their study, they reported that more of the respondents were Muslims (58.7%).

Varma G.R. *et al.* (2007) in their research on "Son preference and desired family size in a rural community of West Godavari District, Andhra Pradesh, India," observed that most of the respondents (97.5%) belonged to schedule cast.

Bhandari G.P. *et al.* (2006) in their study on "Prevalence and determinants of unmet need for family planning in a district of eastern region of Nepal" indicated that majority

of the study population were Hindu by religion (97.3 %) and almost all remaining women were Muslim.

2.1.6 Socio economic status

Joshi N. *et al.* (2009) in their study on "Nutritional education tool to improve overall dietary attitude and knowledge among young women" depicted that all rural women belonged to the lower socioeconomic group.

Above studies indicate that the demographic characteristics of rural women were different in different regions. But there were some similarities in education and occupation of women.

2.2 Studies on gender heath inequity among rural women

Traditionally, patriarchy, has guided the gender relations, roles and behaviors in the Indian society. Women are strictly restricted to the domestic sphere, performing the roles of a housewife/mother, attending to the daily household chores and needs of the children and other family members. The middle and lower class women in urban India, whether, educated and economically empowered or not and majority of women in rural areas continue to experience their lives within the patriarchal framework that determines their choices, opportunities and rights to a large extent (NACO, 2008). They do not have equal access to the resources needed to sustain their health in terms of education, information and services to identify gender discrimination in their lives affecting their health. Studies in this part are further divided into five sub sections –

2.2.1. Menstruation

2.2.2. Marriage

2.2.3. Reproduction

2.2.4. Contraception

2.2.5. Abortion

2.2.1. Menstruation

Menstruation is a biological trait that differentiates men from women, yet has implications in the social realm and adds wide gender gap between males and females in health. The cyclical occurrence of menstruation has generated different myths and superstitions in various cultures over the ages. A woman's culture, reference group, educational status and religious inclination largely influence her perception of menstruation. These perceptions are reviewed here :

Singh Sadhana *et al.* (2011) in their study on "Menstrual hygiene practices and RTI among ever-married women in rural slum" analyzed menstrual hygiene practices among ever married women. Study observed that 62.69% of subjects used fresh cloth during menstruation followed by almost equal number of respondents using sanitary pads and home-made pads *i.e.* 13.16% and 13.67% respectively. Remaining 10.46% of respondents were using used cloth.

Study by **Anjum F. *et al.* (2010)** entitled "Attitudes towards menstruation among young women" determined knowledge towards menstruation among young rural women. Here, 87.6% women regarded menstruation as a natural process; whereas, 12.4% perceived it as a disease and curse from God. Regarding daily activities, most of the females 16.4% reported that they avoided bath, 17% avoided physical activity during menstrual period.

In case of food, 53% of the study participants reported that they don't avoid any food during menstruation process; however, others 47% reported that they avoid meat, eggs, pickle, fish, milk, yogurt, lady finger and cold drinks in this period.

Almost similar findings were observed in the study by **Umeora *et al.* (2008)** in "Menstruation in rural Igbo women of south east Nigeria: Attitudes, beliefs and practices". Study evaluated the beliefs, myths and traditional practices associated with menstruation within rural Igbo communities. In this study, 12.2% respondents considered themselves dirty or were just indifferent to menstruation. While considering restriction during menstruation, 19.2% of women avoided particular foods, 13.55 % strenuous activities, 10.6% social visits, 5% markets and 4.1% churches. Regarding the use of sanitary pads, only 27% of women were using the same.

Another study by **Dhingra R. *et al.* (2007)** on "A comparative study of understanding of menstrual process among married women belonging to two ecological settings" was conducted in Jammu district. Study reported that women considered menses as a 'curse upon them', which prevents them from performing any religious duties and rituals. For maintaining cleanliness most of rural females used homemade napkins. These homemade napkins were usually made up of old torn out clothes. The main reasons for using these were the inability to buy costly readymade sanitary napkins or lack of its availability in rural areas.

The worst situation was found by **Akhter S. (2007),** in her study on "Knowledge, attitudes and practices on reproductive health and rights of urban and rural women in Bangladesh". Study observed that rural women in Bangladesh did not always have access

to contemporary treatment material such as sanitary napkin, tissue or clean cloth. More than 90% of rural women used old cloths during menstruation and they reused them without washing them properly and drying thoroughly. Only 2.4 % of rural women used disposable sanitary napkins. There were many 'don'ts' applied to them during this period: do not touch anything which is holly and secret, do not go outside and do not eat fish, meat, eggs, milk, hilsa fish and prawns. Other foods as vegetables, sour fruits and food cooked with turmeric were also restricted.

Further, **Singh A. J. (2006)** in his study on "Place of menstruation in the reproductive lives of women of rural north India," ascertained the perceptions and experiences of women regarding menstruation and found that women in northern rural India still hold traditional beliefs regarding menstruation. Most of them considered menstruation a dirty act and indulged in various taboo behaviours. During menstruation women were considered impure or contaminated or dirty. So, all kinds of restrictions were imposed on them like not to cook anything in kitchen, not to go to the place of worship or light the holy lamps etc. Very few women (0.4%) used sanitary napkins. Majority of women had strong beliefs about effect of diet on menstruation. They had restriction on eating cold things like rice, curd, curd milk, since consumption of such things leads to pain during menses rather than they believed to take some hot things (dry ginger powder, spices, chilies, and jaggery) every month so that the period comes on early and on time.

However, documentation on the aspect of menstruation among adult rural women is scanty. Studies indicate that the significance and appreciation of menstruation quite similar within rural communities of various societies like Nigeria, Bangladesh and India.

Studies indicated that menstruation for women represents an unhygienic ennui and connote moral and spiritual untidiness, a sign of disease or a curse for evil.

2.2.2. Marriage

Gender discrimination can also underpin early marriage among girls. The phenomenon of early marriage has long been a part of demographic analysis. The age at which women marry is one of important factors determining women's health because women who marry early have a longer exposure to the risk of pregnancy and child bearing. However age at marriage has been raising with exposure to education yet in some communities early marriage is a common behavioural pattern. Focusing on this aspect, studies on early marriage are reviewed here:

Study by **Akhter S. (2007)** on "Knowledge, attitudes and practices on reproductive health and rights of urban and rural women in Bangladesh" found that the average age of marriage for girls was thirteen to sixteen years. In rural area 54%of women got married in this age group and a natural outcome of this early marriage was early pregnancy.

Parveen S. (2007) in her study on "Gender Awareness of Rural Women in Bangladesh" observed that majority of rural women (63.5%) expressed an opinion against early marriage while remaining supported it. According to women who were against early marriage; the health of girls who married early is at risk, including complications such as low birth-weight babies or, in extreme cases, leading to the death of the mother after delivery.

Early marriage was noted in the study by **Sidramshettar S.C. (2004)** entitled "Health status of women in Karnataka: Problems and future need". Study indicated that social

compulsion for marriage of all women at the right age and as early as possible, was still strong among parents of rural Karnataka. Even among younger women aged 20 – 24 years, nearly half were married before reaching the legal minimum age at marriage ie between 10 to 14 years.

The similar situation was found by **Choe. M. K. *et al.* (2004)** in their study on "Early marriage and early motherhood in Nepal". The results showed that early marriage was quite common among women in Nepal, especially in rural areas. Marriages occurred very early among rural females, with 16% of them marrying before age fifteen. About one-half marry between ages 15 and 20 and more than two-thirds of rural females were married by age twenty. The majority of females who got married before age of eighteen thought that they married at an early age. Among those who thought that they married early, 82% of rural females reported that they were married early because their parents wanted them to.

Earlier, **Sivaram M. *et al.* (1995)** in the research on "Early marriage among rural and urban females of south India", concluded that in the rural community 36.8% of women got married before the legal age of 18 years.

It is hard to know the exact numbers of early marriages as many are unregistered and unofficial. However, studies have shown that the age of marriage of girls has a marginal increase over the years. Nevertheless, it continues to be much lower than the legal age.

2.2.3. Reproduction

Within the general context of beliefs related to health, those concerning pregnancy and childbirth are of particular relevance to women's health. The primary role of wife is to

bear husband's children. Role of child bearing affects women's health. Fertility regulation, pregnancy, childbirth require health services for women. In addition, there are different aspect related to pregnancy such as age of women at first pregnancy, ideal number of children and gender preference and factors affecting these practices need consideration. Researches and their findings on these aspects are reviewed here in following sections:

A. Age of pregnancy, birth interval and gender preference

B. Access to obstetric care

A. Age of pregnancy, birth interval and gender preference

Dibaba Y. (2010) in his study on "Child spacing and fertility planning behavior among women in Mana district, Jimma Zone, South West Ethiopia" showed an inadequate child spacing and high level of unintended pregnancy among considerable proportion of the study population. Analysis of birth intervals for women with non first births showed that 27% of births occurred within less than 24 months after a previous birth, indicating that a considerable proportion of births were not adequately spaced. About 39% of women reported that their recent pregnancy was unintended. Women with unintended pregnancy were more likely to be illiterate had four or more living children, had a previous birth interval of less than 24 months.

Study by **Ye Yang *et al.* (2010)** on "Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang Province, Lao PDR", found that 65.2% of respondents had 1 -2 children and 34.8% of respondents had ≥ 3 children. Study

also found that 31.9% of rural women had 1- 2 pregnancies while 68.1% of respondents had ≥ 3 pregnancies.

Study by **Sharma S. *et al.* (2009)** on "The prevalence of reproductive tract infection and sexually transmitted disease among married women in reproductive age group in rural area", indicated the number of children among rural women of Pachhad block of Sirmour district and found that majority of women had three children (91) followed none (52), four (36), five or more than five (16), only one (7).

Son preference and ideal number of children among mothers was assessed by **Dey I. *et al.* (2009)** in their study on "Gender preference and its implications on reproductive behaviour of mothers in rural area of West Bengal". It was found that preference for the son was strong among mothers. A majority (62.8%), of mothers considered two to be the ideal number of children. The ideal gender composition of the children was one son and one daughter as considered by 53.8% of the mothers followed by 32.7% of the mothers who desired for more sons than daughters. A desire for son was noted in 11.5 % of mothers compared to 0.6% who wanted only daughters.

Mustafa R. *et al.* (2008) in their study on "Contraceptive knowledge, attitude and practice among rural women" reported that the majority of respondents (60%) had > 5 children. 25% of respondents had 3 -5 children. 15% of respondents had < 3 children.

Further, **Mumtaz Z, *et al.* (2007)** in their study on "Gender, pregnancy and the uptake of antenatal care services in Pakistan" explored the gendered influences on women's uptake of antenatal care (ANC) services. Study indicated that pregnancy and its associated

decisions were shown to be normatively the older women's domain, with pregnant women and their husbands being distanced from the decision-making process.

Another study by **Varma G.R. *et al.* (2007)** on "Son preference and desired family size in a rural community of West Godavari District, Andhra Pradesh, India," also studied the desired family size and preference for son among rural women. In the community, the mean desirable number of children was 2.5. More than half of the respondents (52.5%) desired to have only two children. Interestingly none of the women respondents desired to have one child. Substantially higher proportions of women (27.5%) responded that the desirable number of children is three. However, for a few women it was recorded as more than three. Further regarding the sex of the child more than half of the respondents (52.5% females) opted for only one son. While the remaining respondents desired to have two sons.

Similar observations were evident by **Puri S. *et al.* (2007)** in their study on "Gender preference and awareness regarding sex determination among married women in slums of Chandigarh". Study indicated that 65.6% of married females, desired for two children followed by 27.8% females who wanted to have 3 children. Only 3.2% desired for more than 3 children. The study also observed that overall male preference was 56% among married women.

Regarding the age of pregnancy, it was found in the study by **Akhter S. (2007)** on "Knowledge, attitudes and practices on reproductive health and rights of Urban and Rural women in Bangladesh" that the majority of first pregnancies occur at sixteen to seventeen years for rural women, 78% of rural women get pregnant before or at the age of nineteen

years. The teenage mothers neither had sufficient knowledge about the process of pregnancy nor were they ready psychologically and physically for childbirth. The study revealed that only 2% of rural women freely decide the number, timing and spacing of their children.

Additionally, study by **Odimegwu C. and Okemgbo C N. (2003)** "Gender role ideologies and prevalence of violence against women in Imo State, Nigeria", observed decision making and gender ideologies regarding fertility among rural women. Study showed that every major decision making in the family favoured the man. Decisions regarding number of children to have and time to have another child were all controlled by the men.

B. Access to obstetric care

Study by **Ye Yang *et al.* (2010)** on "Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang Province, Lao PDR", found that most of the respondents (73.9%) lacked sufficient knowledge about antenatal care.

Regarding place of delivery, **Garg Rajesh *et al.* (2010)** in "Study on delivery practices among women in rural Punjab" found that two-thirds (66.1%) of the deliveries were found to have taken place at home. The most common reasons cited for home delivery were traditional attitude (86.2%) and economic reasons (84. 13.4%). More than half of the deliveries (52.6%) were observed unsafe.

Some other studies conducted in rural areas of different regions observed accessibility of obstetric care during pregnancy among women. Study by **Metgud C. S. *et al.* (2009)** on

"Utilization patterns of antenatal services among pregnant women: A longitudinal study in rural area of North Karnataka", revealed that most of the pregnant women were registered for antenatal care. Few women did not take antenatal care, the main reason being that they believed that pregnancy being a natural phenomenon did not need any special care. Nearly 39.52 % of pregnant women were provided with full antenatal care.

While in study by **Chandhiok N. *et al.* (2006)** on "Determinants of antenatal care utilization in rural areas of India: A cross-sectional study from 28 districts (An ICMR task force study)" found that 73.9% of women had at least one antenatal contact with a auxiliary nurse midwife (ANM) or had visited a government health facility for antenatal services or problems. Study also determined whether health services influence women's decision regarding the place of delivery.

In regards to place of delivery, **Ram F. *et al.* (2006)** in their study on "Marriage and motherhood: an exploratory study of the social and reproductive health status of married young women in Gujarat and West Bengal" stated that in the study area, majority of deliveries were attended by trained traditional birth attendants. It was customary, to keep a woman in 'isolation' after the delivery in her natal home. Pregnant women received help in doing household chores and in accessing health services as well as getting emotional support during pregnancy.

In contrary, study by **Pradhan A. (2005)** on "Situation of antenatal care and delivery practices", studied the coverage rate for ANC and hospital delivery in rural area of Kathmandu and was found good. Majority of women (78%) were benefited by antenatal care services. More notable fact was that the 62% of the respondents made antenatal

visits for four or more than four times. Sixty six percent of the deliveries were hospital deliveries assisted by the doctors. However, 34% of deliveries occurred at home.

Again, a study by **Kalita D.K. (2001)** on "Verification of last doses of vaccines for various vaccination programmes and verification of third pre-natal checkup of pregnant women and third post natal check up of women after delivery" conducted in Halakura and Golokgonj in Dhubri district of Assam and concluded that about 96% mothers had registered their names after 16 weeks of their pregnancy. Most deliveries took place at home (80%), followed by 13% deliveries in PHCs and 7% deliveries at CHCs.

Matthews Zoe *et al.* (2001) in the research on "Antenatal Care, care-seeking and morbidity in rural Karnataka, India: Results of a prospective study" endorsed the finding by Kalita, (2001). Study revealed that at first glance, the situation with regard to antenatal care utilization was encouraging.

Above studies indicate that ideal number of children was two for majority of mothers but preference for male child and unintended pregnancies was high among rural women. Early pregnancies were found in Bangladesh even women in Nigeria did not have power to control their own fertility. Large numbers of women were accessing health services at the time of pregnancy and child birth.

2.2.4. Contraception

With the advancement of new technology, women's fertility is controlled by the various contraceptives. High birth rates reflect the insecurity of women with low child survival and precarious health. Though, India was first country in the world to implement the

family planning programme yet problem still exits. Due to lack of involvement of men and community, women alone have to bear responsibility of population control. Some important findings of the studies on awareness and use of contraception are reviewed here.

An extensive study on "Contraceptive practices among women in rural communities in South-Western Nigeria" was conducted by **AI Olugbenga-Bello *et al.* (2011).** In their study, they reported that 37.4% respondents felt that the husband solely decided on family planning, while 21.4% of respondents felt that it was the wife/partner, but 41.2% felt it was a joint responsibility of husband and wife/partner. It was also found that majority of the respondents 75.8% had good knowledge about family planning while the others 24.2% had poor knowledge.

The study by **Shah N. A. *et al.* (2008)** on "Awareness and pattern of utilizing family planning services among women attending Urban Health Care Center, Azizabad Sukkur," assessed the utilization of family planning services among women and found that about 60% of women reported use of at least one contraceptive method in their lifetime while 40% had never used contraceptives because of husbands' disapproval. The side effects of oral pills reported were 4% high blood pressure, itching, 26.5% weight gain, 8.5% bleeding and 30% reported no side effect and 2% did not know. Regarding side effects of injectable 35% reported no side effects, 12.5% amenorrhea, 12.5% weight gain, 12.5% headache, 5% irregular bleeding, 6% itching, 2% weakness and 2.5% did not know. The side effects of intra uterine device reported were 20.5% excessive bleeding, 20% dislocation and lower abdominal pain, 19.5% complained of only dislocation, 15% said it can produce diseases and 25% of reported no harmful effect.

Situation was better found by **Tuladhar H. *et al.* (2008)** in their study on "Awareness and practice of family planning methods in women attending Gyne OPD at Nepal Medical College Teaching Hospital" found that most of the respondents (93.0%) were aware of at least one of family planning methods out of ten methods, but only 65.0% had ever used it and contraceptive prevalence rate was 33.5%. Regarding current use of contraception, depo provera (11.0%) was the most widely used followed by oral contraceptive pills (4.5%) and condom (4.5%). Female sterilization had been undergone by 5.5% of women while only 2.5% of male partner had sterilization.

Similar trend was observed in the study by **Mao J. (2007)** on "Knowledge attitude and practice of family planning: A study of Tezu Village, Manipur (India)". Study assessed the knowledge, attitude and practice of family planning among the Meitei women of Manipur (India) and ascertained good knowledge and favourable attitude towards family planning. The knowledge of family planning was widespread among the respondents and they were aware of at least one method of contraception. Most of the respondents do not have any reproductive problems.

Awareness about birth control measures was also assessed by **Sharma B. *et al.* (2005)** in "Awareness among women towards aspects of family planning in Kullu district of Himachal Pradesh", Study concluded that majority of women knew about birth control measures. Majority of the respondents were aware about the mechanical method of family planning i.e. loop and condoms (65.3%) followed by chemical method i.e. oral pills (58.6%). Awareness about the natural method was low (42.6%). Study also pointed out that in study area, the use of contraceptives was regarded as being the wife's responsibility.

Earlier, **Kaushik S. *et al.* (2003)** in their study on "Components of unmet need in India: a study based on National Family Health Survey", identified the group of women who want to avoid or postpone childbearing but were not using contraception. Study revealed that women were not using contraception due to the fear of side effects, social reasons like opposition of spouse or other family members and they belief they did not need due to infrequent sexual relation and they were "too old".

Study by **ARTH (2000)** on "Reproductive health on the ground: meeting women's needs in southern Rajasthan: report of 3 years experience of understanding change in health seeking behaviour", revealed that knowledge of sterilization was universal. Contraceptive pills were not readily available in villages. Some respondents also felt that using pills might adversely affect subsequent childbearing.

Above studies point out good knowledge and favourable attitude towards contraception among rural women in India, Nepal and Pakistan. However utilization was low as compared to awareness among women in all regions. Husbands' disapproval, side effect of contraceptives and gender of living children were responsible for the same.

2.2.5. Abortions

Worldwide the magnitude of abortion represents an important aspect of women's reproductive health and rights. Countries where abortions are legally permitted, it is not easily accessible. In these settings. women faced with an unintended pregnancy often self-induce abortions or obtain clandestine abortions from medical practitioners. paramedical workers or traditional healers. Sex determination further contributes in

practicing unsafe abortions. Some relevant views on unsafe abortions and its determinants are discussed here:

Study by **Jejeebhoy S. J. (2011)** in "Increasing access to safe abortion in rural Rajasthan: Outcomes of a comprehensive abortion care model" showed that 11% of all women interviewed had experienced one or more abortions over their lifetime and 4% had experienced an abortion in the three years prior to the interview. Findings also suggested that considerable proportions of women had sought pregnancy termination from an unqualified provider and had made more than a single attempt to terminate the last pregnancy. In addition, a number of women who had ever (11%) or recently (13%) experienced an abortion had attempted to induce the abortion themselves or had approached an informal or untrained provider, including nurses/ ANMs and chemists. Successful abortions had been performed, mostly by doctor and majority of women had undergone surgical abortion (85–86%).

Dhillon B. S. ***et al.*** **(2004)** in their study entitled "Induced abortion and concurrent adoption of contraception in the rural areas of India (an ICMR task force study)", assessed behavior, practices and utilization of services by rural women for induced abortion. Findings revealed that the main reason for seeking abortion was 'don't need any more children' (42%) and in 12.4 % specifically mentioned that they 'don't need any more daughters'. Around 46% of women accessed abortion services from private clinics as compared to government hospital (37.1%) and PHC/CHC (14.0%). The decision to terminate the pregnancy and place of abortion was made by the husband in 42.8% and 52.5% respectively. Regret for abortion was expressed by 29.6% of the women.

While, study by **Ganatra B. *et al.* (2001)** on "Sex-Selective Abortion: Evidence from a community-based study in Western India" examined the actual abortion experience of rural women in the state of Maharashtra in western India who underwent a sex-selective abortion. A total of 1,717 married women from the study area were found to have undergone an induced abortion during the reference period but only 1409 women acknowledged an induced abortion (1492 abortions). Of these, 252 women reported that the main reason for the abortion was to avert the birth of a girl child (17.6%), 77.3% abortions were non-sex-selective. The reasons were identified as spacing (31.6%), limiting family size (40.1%) and contraceptive failure (2.7%). Study also revealed that post-abortion morbidity was high among women who underwent a sex-selective abortion. Three quarters of the women reported one or more problems. They felt to have disrupted their daily work routine. About 45% of the women complained of prolonged and severe bleeding, 13% had persistent menstrual irregularities and 64% attributed weakness to the abortion event.

The magnitude of abortion in rural communities of north Ethiopia was also described by **Getahun H. (2000)** in "Abortion among rural women in north Ethiopia". Lifetime history of abortion was reported by 20.8% of the women. The mean number of abortions per woman was 1.8 with a range of 8 (minimum = 1; maximum = 9). Out of the reported abortions the majority (91.4%) were spontaneous. Induced abortion was mainly related to avoidance of pregnancies too close together and poverty. Self-introduction of hard material in the vagina and chloroquine over-dosage was the main methods used for inducing abortion. One-third of the respondents, 29.6%., disclosed that they had known someone in their family who died of abortion.

Above findings from the studies indicated regional variation in abortions among women. However, reasons for practicing induced abortions were similar i.e. to avoid increased number of children specifically daughters. Pregnancy termination from unqualified doctors and self were highly prevalent. Studies also pointed out towards family influence on in practicing unsafe abortion among women.

2.3 Studies on gender health inequity and IEC (Information Education Communication)

Gender perspectives arise from communities' knowledge, beliefs, and attitudes. Communication messages and interventions can reinforce existing beliefs and social norms or ultimately establish new beliefs, attitudes, and social norms. Information, Education Communication plays a pivotal role in creating awareness, mobilizing people and making development participatory through advocacy and by transferring knowledge, skills and techniques to the people. It is also critical for bringing about transparency in implementation of the programmes at the field level and for promoting the concept of accountability and social audit. Conventionally, the IEC approach is used in the field of reproductive health for creating awareness, increasing knowledge, changing attitudes and moving people to change their behaviour or adapt an innovation (Clift, 2001). The successes of IEC strategy at various national, sectoral and programme level behaviour change interventions are well documented (Cohen, 1993).

Saima Akhund *et al.* (2011) in their study on "Development and pretesting of an information, education and communication (IEC) focused antenatal care handbook in Pakistan" revealed that over 90% of the women understood the messages with the help of

sketches and found this way of message delivery useful. Messages regarding diet, assessment by skilled health providers and getting measurements done (i.e. weight, blood pressure & Haemoglobin) were understood by 100%, 86.7% and 98.0% of women in the community arm and 98%, 85.9% and 95.1% by the hospital arm women respectively. Messages regarding Iron and folic acid intake, tetanus immunization and family planning were understood by 98.0%, 98.7 % and 98.0% of women in the community arm and 96.5%, 97.2 %, 96.5 by the hospital arm women respectively.

Similarly, **Mishra B.N. *et al.* (2008)** in the study on "Evaluation of the impact of health education material on maternal knowledge and practice", observed significant improvement in the knowledge and practice of mothers of rural area after implementing printed health educational material.

Study by **Bertrand J.T. *et al.* (1982)** in "Evaluation of family planning communications in El Salvador" assessed the effect of the Information Education Communication (IEC) program and concluded that of a strong association between family planning communications and the adoption of a contraceptive method. Majority of women showed marked improvement in knowledge regarding family planning after IEC intervention.

Above studies indicate improvement in awareness among rural women regarding family planning, antenatal care after implementing IEC intervention.

2.4 Studies on association between gender health inequity and demographic characteristics

There are various different ways in which the health risks faced by women are influenced

by gender, by the socio - economic and cultural aspects of being female. Women endue most of the complications and in much larger number than man. The females with low level of education, low socio economic status, economic dependency, decision-making role, lower exposure to mass media etc. forced them to higher risks. Studies highlighting association between demographic variables and gender health inequity awareness are reviewed here:

Association between key socio demographic variables and menstrual practices among ever married women established by **Singh Sadhana *et al.* (2011)** in their study on "Menstrual Hygiene Practices and RTI among ever-married women in rural slum". Study revealed that literacy status or education of the respondents bore statistically significant and strong relationship ($p < 0.001$) with their menstrual hygiene practices in terms of using material either as 'Used cloth', 'Fresh cloth', 'Sanitary pads' or 'Home-made pads'. Proportion re-using 'Used cloth' as menstrual hygiene practice was higher among Muslims (14.42%) than in Hindus (8.34%) and this difference was statistically significant ($p < 0.05$); Hindus were also using 'Fresh cloth' & 'Home-made pads' proportionately more than Muslims. Further strong causal association ($p < 0.001$) was evident among all categories in menstrual hygiene practice i.e using one or the other type of the material and socio economic status (SES) of study subjects.

In the study by **Hussain N. (2011)** entitled "Demographic, socio economic and cultural factors affecting knowledge and use of contraception differentials in Malda District, West Bengal" no significant association of contraceptive usages was observed with of literacy. A statistically significant association of contraceptive usage was seen with religion and the age of female.

Parmar V. (2010) in the study on "Disseminating maternal health information to rural women: A user centered design framework" indicated that the demographic characteristics as age and literacy level of the participants had no significant effect on the knowledge level related to menses.

Okezie C. A. *et al.* (2010) in their study on "Socio-economic determinants of contraceptive use among rural women in Ikwuano Local Government Area of Abia State, Nigeria," examined association between - economic factors and the use of modern contraception. Education was a strong determinant of use of contraceptive. High education was usually associated with lower fertility because education tends to delay marriage, increase the value of women's time and increase the likelihood that they get engaged in paid employment.

Study by **Umeora *et al.* (2008)** on "Menstruation in rural Igbo women of south east Nigeria: Attitudes, beliefs and practices" observed economic differences between the respondents in the form of sanitary protection employed. Women mainly from upper social class used sanitary pads during menstrual egress; women in the lower classes use clothes.

Parveen S. (2007) in her study on "Gender awareness of Rural Women in Bangladesh" observed that women's education was positively correlated with their level of gender awareness i.e. timing of marriage

Association between contraception and demographic characteristics indicated by **Ladusingh L. *et al.* (2006)** in their study on "Sex preference and contraceptive use in Manipur" and found that the usage of contraceptives was 47% among literate and 24.1%

among illiterate women. Contraceptive use increased by 22.1% in the case of women above 30 years of age.

Further, **Mohanan P. *et al.* (2003)** in their study on "Fertility pattern and family planning practices in a rural area in Dakshina Kannada" found that religion played an important role in determining the attitudes of the people in limiting the family. Non-acceptors of family planning methods were higher among the Muslims. Education level of the respondents was not influencing the acceptance of family planning methods. The influence of income and type of family were also found to be statistically significant. These two variables influenced the acceptance of family planning methods.

Hadi A. (2001) in the study on "Effects of the productive role of Bangladeshi women on their Reproductive Decisions" found that education of respondents appeared to play a significantly ($p<0.01$) positive role in raising women's perceptions regarding timing of childbearing and right to use contraception.

Bertrand J. T. *et al.* (1982) in "Evaluation of family planning communications in El Salvador" assessed the effect of the Information Education Communication (IEC) program and concluded that education, working status of women and SES play a vital role in success of IEC interventions on family planning.

Above studies indicate the significant association of demographic characteristics on women's awareness and attitude regarding family planning, timing of child bearing, marriage and knowledge of menses. One of the studies also pointed out the significant association between after intervention awareness and demographic characteristics.

2.5 Studies on women's health status and its association with gender health inequity

Unhygienic practices during menstruation, early marriages, early pregnancies, no use of contraception and unsafe abortions all have damaging effects on women's health. Relationship between gender health inequity and women's health in various studies are reviewed in two sections –

2.5.1 Women's health status

2.5.2 Gender health inequity and women's health status

2.5.1 Women's health status

Singh S. ***et al.*** **(2011)** in their study on "Menstrual hygiene practices and RTI among ever-married women in rural slum", found RTI symptoms among rural. Women were suffering from 'Vaginal discharge' , 'Itching', 'Boils', 'Pain abdomen' ,'Pain during sexual intercourse', 'Backache', 'Lymph node enlargement'.

Gupta S. K. ***et al.*** **(2010)** in their study on "Antenatal characteristics of the beneficiaries of Janani Suraksha Yojana in a tertiary care hospital in Madhya Pradesh" found that among the study group 87% were anemic. Severe anemia was observed in 21.33% of respondents.

Rout N. R. (2009) in the study on "Food consumption pattern and nutritional status of women in Orissa: A Rural-Urban Differential" evidenced that majority of rural women(54.0%) were having normal BMI 18.5-25 kg. /m^2, 33.0% of women were

underweight having BMI <18.50 kg. /m^2, 13.0% of women were overweight having BMI > 25 kg. /m^2.

Study by **Sharma S. *et al.* (2009)** on "The prevalence of reproductive tract infection and sexually transmitted disease among married women in reproductive age group in rural area", highlighted the prevalence of RTI among rural women of Pachhad block of Sirmour district. The most common presentation among women was vaginal discharge (51.9%) followed by lower abdominal pain. Less than 2% of women had genital ulcer disease and inguinal lymphadenopathy. Apart from vaginal discharge which was the most common symptom, many women were also suffering from other reproductive morbidities like menstrual problems, lower backache and burning micturition. Further, some women reported having more than one reproductive morbidity.

Similarly, in the study by **Pant B. *et al.* (2008)** on "Social correlates in reproductive tract infections among married women in rural area of Meerut" observed that 35.3% of women reported symptoms suggestive of reproductive tract infection.

Earlier, in the study on "Self-reported symptoms of reproductive health problems of women in India" by **Kanitkar *et al.* (2004)** data was collected through National Family Health Survey-2 (1998-99). Study examined that the prevalence rate of RTIs among rural women was 40%. Abnormal vaginal discharge and severe abdominal pain was found to be 49% in rural areas. On an average, women reported more than two symptoms of RTIs which were 2.5%.

Effect of contraception on women's reproductive health was observed by **Rathore M. *et al.* (2003)** in "Community based study of self reported morbidity of reproductive tract

among women of reproductive age in rural area of Rajasthan". Study found the prevalence of self reported morbidity related to reproductive tract was 31.8% and more than one morbidity was found per person. About 22.3% women of study population was suffering from RTIs, 6.1 % women had menstrual problem, 5.7% women were sterile, 2% had prolapsed uterus, 0.96% women had urinary tract infection and only 0.57% women had uterine and ovarian growth.

Gautam V. P. ***et al.*** **(2002)** conducted a research on "Prevalence of anaemia amongst pregnant women and its socio demographic associates in a rural area of Delhi". Study indicated a high prevalence (96.5%) of anaemia (Hb <11 gm/dl) among rural women.

Singh S. K. ***et al.*** **(2001)** in their study on "Psychosocial, cultural and service factors affecting reproductive morbidity among rural women in Maharashtra" observed in rural Maharashtra that 29% of rural women were having at least one menstrual problem. Painful period (dysmenorrhea) and scanty bleeding (hypomenorrhea) were the two leading problems reported by 13% and 11% of women respectively.

Sharma R.K. ***et al.*** **(1986)** in their study on "Health problems of rural women" found that rural women were suffering from constipation (23%), diarrhea (17%).

Above studies indicate the high prevalence of anaemia, menstrual problems and RTI among rural women. However, body mass index was found normal among rural women of Orissa. Studies also pointed common illnesses of digestive system among rural women.

2.5.2 Gender health inequity and women's health status

Singh S. ***et al.*** **(2011)** in their study on "Menstrual Hygiene Practices and RTI among

ever-married women in rural slum" established association between RTI and menstrual hygiene practices among ever married women. Study observed that RTI symptoms were strongly associated ($p<0.001$) with menstrual hygiene practices of re-using 'cloth'. Women who were using 'Used cloth' during menstruation, most of them reported RTI symptoms as compared to women who were using 'fresh cloth', 'sanitary pad', 'Home made pads'.

Study by **Sharma S. *et al.* (2009)** on "The prevalence of reproductive tract infection and sexually transmitted disease among married women in reproductive age group in rural area", observed association between RTI and use of contraceptives among women. Study revealed that the prevalence of reproductive tract infection among women using oral contraceptives and condoms was less (13.3%, 16.7%) as compared to those who were using an intrauterine device and tubectomies. Women who were not using any contraceptive, 52.2% of them were suffering from RTI.

Similarly, in the study by **Pant B. *et al.* (2008)** on "Social correlates in Reproductive tract infections among married women in rural area of Meerut", indicated that one-third of the respondents who married before the age of 18 years majority of them reported (40.9%) RTI. The prevalence of RTI was significantly higher ($P < 0.001$) in women who used unworked clothes during menstruation (40.2%) as compared to women who used either washed clothes (23.7%) or sanitary pads (28.6%) ($P < 0.001$). Prevalence of RTI was maximum (42.7%) in women who had adopted sterilization and minimum (13.3%) among the oral pill users ($P < 0.02$).

Whereas, in the study by **Akhter S. (2007)** on "Knowledge, Attitudes and Practices on

Reproductive Health and Rights of Urban and Rural Women in Bangladesh", most of the women that were using rejected waste cloths during menstruation, suffering from severe menstrual pain, abdominal pain, vaginal bleeding, genital itching and lower backache.

Study on "Self-reported symptoms of reproductive health problems of women in India" was conducted by **Kanitkar *et al.* (2004).** Study observed that woman having no children had the highest prevalence rate of RTIs (43%). Among the iatrogenic factors, induced abortions, spontaneous abortions and sterilizations were significantly associated with RTI prevalence. Home delivery was the greatest risk factor associated with RTI symptoms and delivery in private hospitals had minimum risk. Highest RTI prevalence rate was observed for women who married at age 15 years and lowest for women married at 19 years or above.

Another study on "Women's reproductive tract infections in Uttar Pradesh and Uttaranchal" by **Gulati S.C. *et al.* (2003)** revealed that in most of the districts of study area the prevalence rate of RTI /STI was higher for females which could be due to frequent child bearing that make them more vulnerable to RTIs. The incidence rates have been classified into three categories viz. low, medium and high, and women's incidence rate of RTIs/ STDs ranges between 19-31%, 32-39% and 40-59% respectively. Study showed that institutional deliveries depicted significant and inhibitive effect on the incidence of RTIs/ STIs. Higher fertility was also associated with higher incidence of RTIs/ STIs.

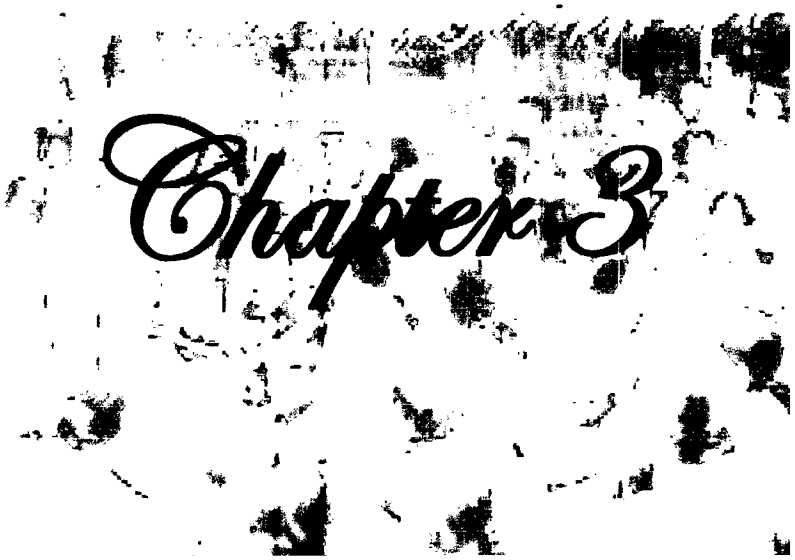
Association between contraception and women's reproductive health was observed by **Rathore M. *et al.* (2003)** in "Community based study of self reported morbidity of

reproductive tract among women of reproductive age in rural area of Rajasthan". Study indicated that 37.6% of invasive contraceptives (IUCD, Tubal Ligation) users were suffering from RTIs against 22.1% of non – invasive (Oral contraceptive pills, condom, vasectomy) contraceptive users.

Birth interval and number of abortions have an effect on women's health was studied by **Gautam V. *et al.* (2002)** in their study on "Prevalence of anaemia amongst pregnant women and its socio demographic associates in a rural area of Delhi". Study found that the prevalence of anaemia was not significantly related with birth interval and number of abortions. However, the prevalence of severe anaemia was found significantly higher in those with no history of abortions and birth interval of >36 months. When first pregnancy was delayed upto 18 years or later, the pregnant women were more often normal or had mild anaemia. However, these trends were statistically not significant.

Above studies highlights that the anaemia among women was due to less spacing between births. Further, women were found to suffer with reproductive health problems as vaginal discharge, lower abdominal pain and menstrual irregularities due to oral contraceptives, unsafe abortion, early marriages and frequent child bearing.

All the studies referred above indicate the vast literature and varied scholarly explanations for the present research "Assessment of awareness and impact study of IEC aids regarding gender health inequity among women of Jawan Block, Aligarh, U.P.". Database of these studies form a base for research methodology, data compilation and analysis of present work.


Chapter 3

MATERIALS AND METHODS

Methodology in its narrowest sense is the collection of methods and rules by which a particular piece of research is undertaken i.e. the design, the procedure of data collection, method for data analysis, selection of subjects and details of the specific treatment if any (Jones, Noffke, & Somekh, 2005). Methodology for the present study was planned after conceptualizing the research study and after reviewing existing literature on related issues. The data was collected from primary and secondary sources. The methodology adopted for this study is discussed under following headings –

3.1 Type of research

3.2 Research design

3.3 Variables used in the study

3.4 Description of study locale

3.5 Sample selection

3.6 Tools used for data collection

3.7 Study data

3.8 Response rate

3.9 Data processing and data analysis

3.10 Supporting organizations and persons

3.11 Ethical considerations

3.12 Problems faced by researcher

3.13 Time plan of the study

3.14 Limitations of the study

3.1 Type of research

Research is a human activity based on intellectual application in the investigation of matter. Present study is a community based intervention research and exploratory in nature. Present research focused on the effectiveness of IEC within a community with the goal of improving the knowledge of the target group of an area of concern. In the study, researcher identified gender health inequities and its awareness among target group and attempted to bring behavioural changes among them to improve their knowledge and practices in a given situation.

3.2 Research design

Research design is planning strategy of conducting research. Russell A. (1961) maintains that research design is "planning various phases and procedure relating to the formulation of research efforts." To evaluate the effectiveness of interventions requires, however, a research design that follows the principles of experimentation (Askew, 2005). In the present study, 'the one group pretest posttest design' was used which falls in the category of 'quasi experimental research design'. Here, each individual in a group is measured once before and once after a treatment (Shadish, Cook, & Campbell, 2002).

One group pretest- posttest group design

Pre	Intervention	Post
O	X	O

Research design of four phases was prepared to conduct the study. Following were the four phases in which the study was conducted.

Phase I Collection of reference material

Firstly, literature was collected on different aspects of the problem under study to familiarize the researcher with knowledge pertaining to the area of study. Literature was collected from journals, books, gazettes, bulletins, newsletters, survey and annual reports of governmental and nongovernmental organizations of national and international level. Demographic records of local self government were also accessed to collect information about study locale.

Phase II Preparation of study tools

After reviewing the existing material, study tools for collection of data were prepared. Tools were prepared in two steps. In the first step, pre and post intervention tools were prepared and secondly, interventions for creating awareness were prepared.

Phase III Field visits for collection of data

In this phase, field visits were organized for data collection. It was done in three steps. First step included collecting baseline data from target group, second step included implementation of interventions and third step included the constant evaluation of interventions implemented.

Phase IV Analysis, interpretation and documentation of data

Data collected from field visits was tabulated and subjected to statistical treatment for satisfying the objectives of the present research. Results were drawn and analyzed in the

light of the review and covering all major aspects of the study. Graphical representation using pie charts, bar graphs were done.

Research design of four phases helped researcher to carry out research in right direction by providing a systematic way of proceeding. This framework helped in reducing inaccuracies that minimized the wastages of time and money. It made possible to achieve optimum reliability and to draw useful conclusions.

3.3 Variables used in the study

A variable is an image, perception or concept that is capable for measurement; hence capable of taking on different values (Ranjit Kumar, 2005). Dependent and independent variable for the present study were-

3.3.1 Independent variables

An independent variable is the presumed cause of dependent variable – the presumed effect. (Ahuja, 2001). In present study, independent variables were demographic characteristics and Information Education Communication.

a) Demographic characteristics

- *Age of women* referred to chronological age of respondent in completed years at time of interview.
- *Women / husbands' education* was described according to their formal schooling.
- *Employment status of women / husbands* variable referred to the paid employment of women and husband.

- *Religion / Caste:* Caste/ religion determined by the religion of the respondent's family.
- *Socio Economic Status* variable referred to per capita income of family (Annexure I).
- *Type of family* variables described according to the number of family members and the relation between them.

b) Information Education Communication (IEC)

IEC as a variable referred to the various communication aids and approaches that were responsible to increase or not to increase the awareness among rural women.

3.3.2 Dependent variables

A dependent variable is one which changes in relationship to changes in another variable (Ahuja, 2001). In present study, two dependent variables health status and gender health inequity were included.

a) Health status

Health status referred only physical health of respondents including BMI, anaemia, common illnesses, menstrual problems and reproductive tract information.

b) Gender health inequity

Gender health inequity variable referred to awareness, misconception and practices regarding unjust disparities that create health risks to women by limiting their control over resources in practicing gender. It has been described before and after

implementation of IEC. Five inequities covering a wide range of attributes were comprehensively measured. These are described as below:

- *Menstruation* referred to awareness about menstruation, misconception about hygiene and restrictions.

- *Marriage* referred to awareness regarding age of marriage, women's age of marriage, opinion on early marriage and awareness regarding consequences of early marriage.

- *Reproduction* referred to awareness regarding age of pregnancy, women's age of first pregnancy, number of pregnancies, consent pregnancy, birth interval, obstetric care.

- *Contraception* referred to awareness and practice of contraception, decision making and problem faced by women.

- *Abortions* referred to awareness and practice of abortion, place of abortion and awareness regarding the consequences of abortions.

3.4 Description of study locale

The study was carried out in Jawan block of Aligarh district in Uttar Pradesh. Situated in the Indo – gangetic plain and intersected by rivers, Uttar Pradesh is often described as the "Land of Ganga and Yamuna" and "Hindi – speaking heartland" of India. Uttar Pradesh is most populous state of India. The State has a population of 16.61 crore as per 2001 census and a geographical area of 2.41 lakh sq. km. Its share in total area of the country is 7.3%, while its share in country's population is 16.2 per cent. The State is now organized into 71 districts, which are grouped into twenty divisions (Human Development Report,

2006). Aligarh district, one of the major districts of Aligarh division in the state of Uttar Pradesh, occupies a prominent place due to its socio - economic and academic specialties. The district is an agricultural trade centre. It has always been an important business center of Uttar Pradesh which is most famous for its lock industry. There is a thermal power station called Harduaganj Thermal Power Station (also referred as Kasimpur Power House). Aligarh is a district of Uttar Pradesh that is held in high esteem for the educational facilities offered here. It is mostly known as a university town where the famous Aligarh Muslim University is located.

3.4.1 Geographical and demographic features of Aligarh District

Aligarh is situated in the middle portion of Doab or the land between the Ganga and Yamuna rivers at a distance of 133 km of south east Delhi. The Grand Trunk Road passes through the city. The district covers an area of about 3700.4 sq km, taking a shape of irregular hexagon. It has the district of Bulandshahar to its north, Gurgaon (Haryana) to its west, Mathura to its south and south-west and Etah and Badao to its east and north east. Like other parts of middle Doab, Aligarh has a hot and dry climate as provincial statistics shows the general deficiency of rain (Siddqui, 1981). The average rainfall is 466 mm. in the district. The coldest months of the year here are between December and January, where the mean temperature ranges between 30 degrees Celsius. The hottest months of the year are between May and June where the mean temperature lies between 49.9 degrees Celsius and 33.8 degrees Celsius, in shade. As the census of 2001, Aligarh has a population of 29, 92,286, males being 16, 07,402 and female population being 13, 84,884 with the population density of 820 persons / sq km. It ranked at 26th position in

terms of population density. The population of the district is of mixed nature representing people of different religions, occupations and socio economic levels. Aligarh has an average literacy rate of 55%, lower than the national average of 59.5%; with 59% of the males and 41% of females literate. 16% of the population is under 6 years of age (District Stasitical Information Report, 2006 - 2007). Aligarh has always been an important business center of Uttar Pradesh which is most famous for its locks industry. The locks that are produced in Aligarh are export quality and exported to different parts of the world. Aligarh is also famous for its brass hardware and sculptures. Today, the city holds a number of manufacturers, exporters and suppliers involved in brass, bronze, iron and aluminum industry. Aligarh has developed into a commercial center of an agricultural region which produces wheat, sugarcane, cotton, corn, barley and millet. The main languages spoken here in Aligarh are Hindi, English and Urdu (Samajzikarthik Samiksha of Aligrah, 2008).

Aligarh district is divided into five 'Tahseels' as Khair, Gabhana, Koil, Iglas, Atrauli and one Municipal corporation. Municipal Corporation is subdivided into two Municipalities, nine City councils and one Census town and further divided into wards. Tahseels are subdivided into twelve blocks as Tappal, Khair, Chandaus, Jawan, Atrauli, Bijauli, Gangiri, Akrabad, Dhanipur, Lodha, Gonda and Iglas that are further divided into Nyaya Panchayats. The present study covers the area of Jawan Block (Samajzikarthik Samiksha of Aligrah, 2008).

3.4.2 Geographical and Demographic features of Jawan Block

a) *Location of Jawan Block:* Jawan Block is situated on Diwai road; seventeen

kilometers away in North from district headquarter. It is connected with Dhanipur Block in East, Atrauli Block in North East, Bulandshahar in North, Lodha and Chandaus Block in west and Aligarh Municipal Corporation in south. Jawan block lies under 'Gabhana Tahseel' but some villages of this block lie under Koil Tahseel (Samajzikarthik Samiksha of Jawan Block, 2008).

b) Administrative division of Jawan block: Jawan Block is subdivided into Nyaya Panchayats. There are ten Nyaya Panchayats in Jawan Block viz. Bahadurpur Kota, Barauli, Mavan, Satha, Chherratpur Sudiyal, Chhalesar, Talibnagar, Jawan Vajidpur, Amrauli, and Tamkauli. There are seventy eight Gram Panchayats under these Nyaya Panchayats that are sub divided in 109 revenue villages in which 108 villages are habited and one is inhabited (Samajzikarthik Samiksha of Jawan Block, 2008).

c) Climatic condition of block: Jawan block have dry climate and percentage of humidity is generally high. Here, winter remain for longer time and generally covers dense fog. This block is exposed to North West monsoon in the month of May and June (Samajzikarthik Samiksha of Jawan Block, 2008).

d) Area and population of block: Area covered by this block is 286.6 km sq which shares 7.74 percent of district area. According to 2001Census, block Jawan has a total population of 2, 11,390, males being 1, 12,926 and female population being 98,464 with population density of 547 per km sq. 32877 families are residing in the block. According to census 2001, sex ratio of Jawan Block is 812 comparatively lower by 50 from district sex ratio of 862 (Statistical Report of Jawan Block, 2007). The people of this region are generally traditional in their approach towards their life. Social institutions like caste and

religion still dominated to the lives of people. Different sub culture groups are found here. Family is still the center of socio - cultural activities. Its traditional functions are in flux and are under gradual erosion. Nuclear families have become common. The common spoken languages of the people are Hindi and Urdu. The popular means of entertainment for people of this block are television, films audio – video, tape recorder, Drama, Rasiya and Dangal (Samajzikarthik Samiksha of Jawan Block, 2008).

e) Occupation of block: Agriculture is the main occupation of the block wherein wheat, barley, millet, maize, red gram, green gram, peas, and lentil are mainly produces. In addition to this Gingelly seeds (Til), Mustard, Rice, Sugarcane are also grown. Among vegetables Cucumber, Watermelon, Muskmelon and potatoes are produced (Statistical Report of Jawan Block, 2007). The other sources of employment in this block are animal husbandry, fisheries small and large scale industries, trade, and service organizations. A government firm Kasimpur powerhouse is located in this area that provides employment on large scale at lower level posts to people from nearby villages (Statistical Report of Jawan Block, 2007).

f) Facilities in the block: Irrigation Facility: River Kali and Upper Ganga Canal provides important irrigation source in some parts of this block. Except this, there are various other sources of irrigation and safe drinking water as tanks, wells and hand pump. Government has facilitated all one hundred and eight villages of the block with India Mark 2 hand pumps (Samajzikarthik Samiksha of Jawan Block, 2008).

Transport and Communication Facility: The proper roadways facilitate the transportation of goods and by doing so promoted commercial activities on relatively large scale. Sixty

percent villages of this block are connected with roads. There are 178 K.M. Pucca roads, four railway station Halt and 8 bus stops connected these villages with each other and other places. Aligarh – Bareli railway line pass on from this block. Additionally, there are other means of transportation as auto, horse cart that facilitate people to reach in this area. As means of communication, there are 27 Post offices, 27 Letter Boxes, 68 PCOs, 1556 Telephone connections, one radio station and Doordarshan Kendra successfully running in the block.

Electricity: Hundred villages of the block have facilitated with electricity (Statistical Report of Jawan Block, 2007).

g) Educational profile: Literacy rate of the block is 59.64 %, slightly higher than the district average of 55 %. Literacy rates differ widely between males and females. Thus, according to 2001 census, the male literacy in the block is 74.88% and female literacy 42.03%. School education in Jawan comprises three stages, lower primary (Class I to V), upper primary (Class VI to VIII) and secondary education (Class IX to XII). In terms of organizational structure the school system consists of government schools, private aided schools and private unaided schools. There are 131 lower primaries, 47 upper primary and 12 secondary schools in Jawan (Samajzikarthik Samiksha of Jawan Block, 2008).

h) Health infrastructure: The public health system in the block provides three tier medical services in the block. First level health services are provided through community health centers established at block level. At the second level, health services are provided in remote rural areas through primary health centers. At the third level, health services are provided in rural areas through sub centers, ANM and ASHA. There is one community

health centre, four primary health centers, thirty family and mother child welfare sub centers and one ayurvedic, unani, homeomedical dispensary in Jawan. There are twenty six auxiliary nurse midwife / basic health workers are appointed at the sub centers in the block. At village level 213 ASHAs are appointed under national rural health mission. There are 130 anganwadis / badwadis are running under ICDS and forty one yuva mandals and sixteen mahila mandals are running to serve the people (Samajzikarthik Samiksha of Jawan Block, 2008).

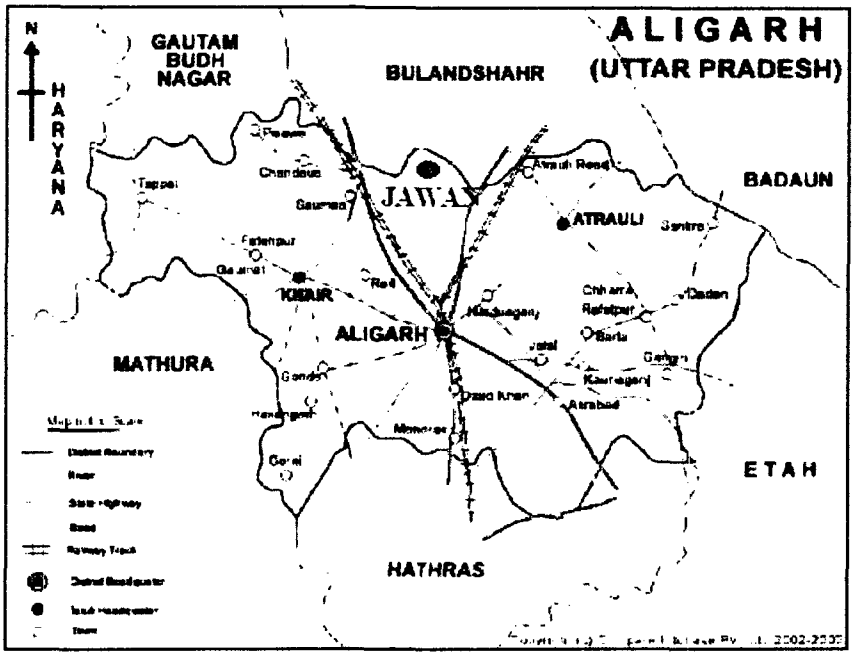


Figure: 3.1 Map of Aligarh District indicating location of Jawan block

3.4.3 Considerations for selection of study Locale

There were some major considerations for selection of Jawan block as study locale -

- Jawan block comprised of the population of mixed nature comprising different socio –cultural, economic background and educational status.

- Gender, health and IEC related studies had not been done in this region so far.
- Easy accessibility and ease of approach.

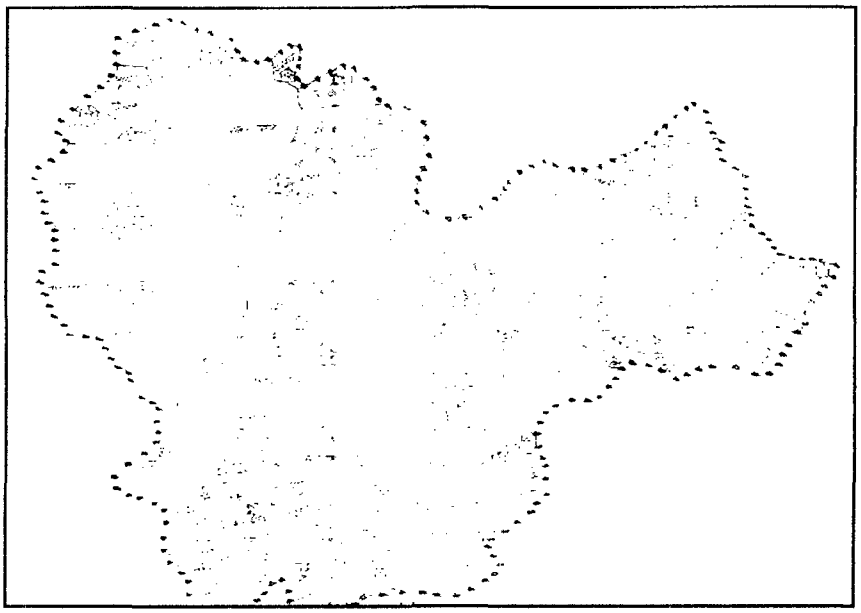


Figure: 3.2 Map of Jawan block

3.5 Sample Selection

In the present study, sample selection was done in following ways -

3.5.1 Population profile of the study

The sum total or the aggregate of all units / cases that conform to some designated set of specifications is called the universe or population (Ahuja, 2001). The population for present study consisted of the rural women of early adulthood stage. Early adulthood is the age when women enters into three new gender roles of daughter in law, wife and mother due to marriage and their reproductive roles. These prescribed gender roles place a heavy burden among women with limited social support network. Early adulthood, the

settling down' and 'reproductive age', extends from age of eighteen to approximately age of forty (Hurlock E.B., 1981). So, for the deeper understanding of gender health inequity, all the married women of age eighteen to forty years residing in Jawan Block referred as the population of the study. Approximately 27, 249 women of eighteen to forty years age group were considered as population for the study. The selection of target population was done using voter list of Loksabha elections 2009.

3.5.2 Sample

A sample is a portion of people drawn from a larger population. In determining the size of sample, the variability over the population and statistical significance play a significant role (Ahuja R. 2001). In the present study, data available from voter list was used to provide baseline data about the total number of women of age 18 – 40 years in a target area. As the number of women of age 18 – 40 years was large and physically was not accessible so researcher focused only a sample. The sample size was calculated using the following formula, adopted from Ahuja R, 2001.

$$n = N / 1 + N (e)^2$$

Where, N = total population and

e = .05 confidence level.

$$n = 27,249 / 1 + 27,249 (.05)^2 = 394.2132$$

round figure = 400

Considering non - response rate of 10 - 15 % (Nigussie, Mariam, & Mitike, 2004; Mandal, Malik, Roy, Mandal, & Dasgupta, 2007) a total calculated sample size of 450 adult married women and of age 18 – 40 years was targeted for the study.

3.5.3 Sampling Technique

For the selection of target group *proportionate stratified systematic sampling* design was adopted. It was done in two stages.

The *first stage* consisted of *selection of gram panchayats from Jawan Block* of Aligarh district. More than ten percent of gram panchayats were selected for conducting field survey. While selecting gram panchayats, accessibility factor was considered for instance good accessibility, gram panchayats located either along roadside or around the urban area. Whereas, under poor accessibility those gram panchayats were considered that were located amidst the fields, along the river canal or canal bank. They were further categorized according to the availability of primary health care services. All the selected gram panchayats formed four strata:

i. The first strata consisted of gram panchayats, which were having good accessibility and where primary health care facilities were available within 0 - 2 km. of distance.

ii. The second strata consisted of gram panchayats, which were having good accessibility and where primary health care facilities were available at above 2 km. of distance.

iii. The third strata consisted of gram panchayats, which were having poor accessibility and where primary health care facilities were available within 0 -2 km. of distance.

iv. The fourth strata consisted of gram panchayats, which were having poor accessibility and where primary health care facilities were available at above 2 km. of distance.

Eight gram panchayats were proportionately selected from these four strata with the help

following formula (Adopted from P.K. Majumdar, 2005).

$$n_h = N_h \times n / N$$

nh = Number of gram panchayats to be included from I/II/III/IV strata

N = Total gram panchayat in I + II + III+ IV strata

N_h = Number of gram panchayat in each strata

n = sample size

Strata I	$n_h = 28 \times 8 / 78$	= 2.871	round figure 3
Strata II	$n_h = 10 \times 8 / 78$	= 1.02	round figure 1
Strata III	$n_h = 19 \times 8 / 78$	= 1.9	round figure 2
Strata IV	$n_h = 21 \times 8 / 78$	= 2.1	round figure 2

Second stage, consisted of *selection of rural women from selected gram panchayats.* Rural women, which formed the ultimate sampling units, were then selected from eight gram panchayats. So the total number of women of age 18 – 40 years of these eight gram panchayats were considered here as target population. Women were systematically selected from the target population of eight gram panchayats using formula given below (Adopted from Ahuja R, 2001).

$$n^{th} = N/n$$

Where, N = number of units in the target population,

n = number of units of sample

n^{th} = 3171 / 450 = 7.04 round figure = 7

Every seventh (7th) woman in voter list of loksabha election - 2009 of every gram panchayat was selected. Representation of sampling has been given in Annexure II.

3.6 Tools used for data collection

In the present study, five tools as interview, participant observation, health examination and IEC were used for collecting data.

3.6.1 Interview Method

Interview method was used to collect the data among women. According to Majumdar, 2005, Interview is an interactive process between two or more individuals in which one person provides the necessary stimuli and other person(s) to it by a verbal reply. *A repetitive interview method* was used as a major tool to collect the required data. During data collection, the same group of women was interviewed after a lapse of time. One respondent at a time was interviewed for collecting data. Interview was personally administered to study demographics and gender health inequity among women

Before conducting interview, schedules were prepared which have sets of questions related to different issues covering gender health inequity. *A semi structured partially open ended schedule* was used for conducting interview in both phases. For collecting information, interview schedule had different sections. Each section had questions regarding awareness and practices of one specific issue among women. Pre interview schedule was prepared for collection baseline data. Post interview schedule was only for studying the impact of IEC on target group by increase in existing awareness. So the post interview schedule did not cover those sections which cover questions related to the practices which had been done in the past. This schedule covered sections related to

gender health inequity awareness and future practices (figure 3.3). Pre and Post interview schedules as been given in Annexure III A and III B.

The researcher while developing questions has also kept in mind social, political, economic and educational and religious aspects of rural areas. Following guidelines were kept in the mind while preparing schedule and conducting interviews –

- Avoid statements, which cover those aspects of gender health Inequity that were beyond target groups' understanding.
- Avoid statements that may be interpreted in more than one way.
- Avoid statements that irrelevant to measure awareness of gender health inequity.
- Kept the language of statements simple, clear and direct.

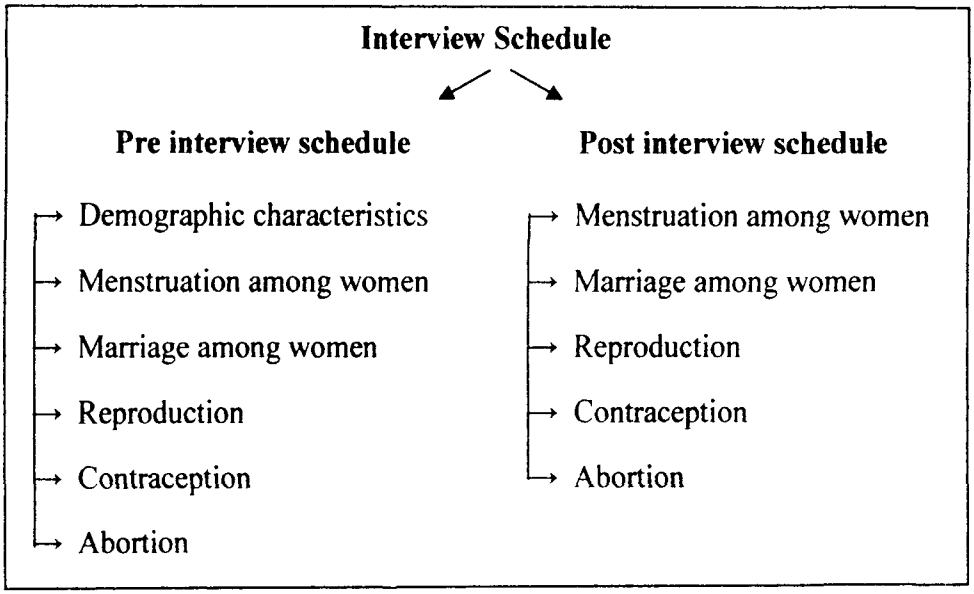


Figure: 3.3 Layout of Interview Schedules

3.6.2 Participant Observation

Real lives, typical activities and normal encounters of the sample group were studied in

their natural surroundings through participant observation. Observation is a method that employs vision as its main means of data collection (Ahuja, 2001). In the present investigation, observation was used as a research tool in combination with interview schedule to collect accurate and complete information required for the study. A wide spectrum of components including verbal and non verbal behaviour, women's expressions for a particular issue were observed through participant observation. By observing different aspects of social world of rural women helped the researcher to gain a sense of relationship between their role and health.

3.6.3 Assessment of health status

Health assessment was done to assess the impact of gender health inequity on target group. Anthropometrical examination, biochemical and clinical history were done for assessing health status.

a) Anthropometrical Examination

For Anthropometric measurements efforts were made to secure accuracy. In the study, anthropometric measurements Height and weight were used for calculating BMI.

Height: Every subject's height was measured in centimeters nearest to 0.2 c.m. The height was pointed out on the wall and measured with flexible and non stretching measuring tape. While measuring height, respondent was asked to stand without shoes. The weight of the respondent was evenly distributed on both feet. The heels of the feet were placed together with both heels touching the base of wall. The buttocks, scapulae and head were positioned in contact with the wall. The subject looked straight and head

was comfortably erect. The arms hanged freely by the sides of the trunk with palms facing the thighs. Respondent was asked to inhale deeply and to stand fully erect without altering the position of the heels (National health and Nutrition Examination survey III - Body Measurements (Anthropometry), 1988).

Weight: Weight was measured to the nearest 0.1 kg with weighing machine in kilograms. To ensure the accuracy, it was checked daily with standard weight by taking repeated weight of same individual. Participants were asked to wear light clothing while being weighed and to remove any heavy clothing, sandals, shoes (National Family Health Survey, India, 2005-2006). It was preferred to weigh the respondents before lunch.

Body Mass Index: Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. BMI was calculated as weight in kilogram divided by square of height in meters (kg/m^2). Subjects were categorized according to their BMI as the criteria of world health organization (Annexure I).

b) Biochemical Examination

Biochemical examination was done for assessment of iron deficiency anaemia among rural women by measuring haemoglobin concentration. It was measured from capillary blood using a portable haemoglobin meter "Sahli's Method". Anaemia was defined as the criteria followed by National family Health Survey III (Annexure I).

c) Clinical History

The study considered self reported menstrual problems and reproductive tract infection.

As laboratory verified estimates are eight times more expensive than self reported status. Menstrual problems and reproductive tract infection were assessed using the following clinical presentations documented by Sowmini, C.V., Sankara, S. P. (2004) (Annexure I). Self reported common illnesses as malaria, diarrhoea, constipation, tuberculosis, fever, cough / cold, worms, joints pain were also considered in the study. Study considered illnesses faced by women at time of interview or within last three months.

3.6.4 Information Education Communication

The present study was designed as a small awareness intervention for rural women. The aim was to create awareness about gender health inequity among them and seek their participation at every step. IEC was used as intervention for this purpose. IEC means sharing information and ideas in a way that is culturally sensitive and acceptable to the community using appropriate channels, messages and methods (Zimbabwe National Family Planning Council, 1998). IEC was conducted with the help of IEC aids. These aids were self prepared. As a part of IEC, some innovative participatory learning activities in the form of games developed by Indian Institute of Young Inspirers were extensively used in the present study. Some changes that seemed pertinent were incorporated. While preparing or purchasing material, attention was given on interactive IEC material. Material was prepared for audience where majority of women were illiterate, so focus was given to communicate message in the form of illustrations. Some text messages were added for literate. Each illustration communicated a single and distinct message. Message was given in simple format. Appropriate and realistic images were used. Characters in stories were familiar and belong to their community so that

message can communicate in effective way. Various IEC aids, used in the study, have been given in table 3.1 (Annexure IV).

Table: 3.1 Information Education Communication aids

IEC aids	*Hindi title*	*English meaning*
Flash cards	Ladka hi hoga	Will be son
	Chhoti si dulhan	The little bride
Flip book	Masik dharm – Sharirik par chooachoot nahi	Menstruation - Physiological but not untouchability
	Swasth maa swasth shishu	Healthy mother healthy baby
Poster	Garbhpat - Sehat par asar	Abortion – effect on health
	Garbabastha me rakho dhyan – Pao ek swasth pran	Take care of women in pregnancy – get a healthy life
	Bhrun vikas	Foetal development
	Beti ho ya beta parivar rakhe chhota	Either girl or boy but family must be small
	Doosre bachhe me antar laye – Swasth pariwar payen	Interval between two children – Get a healthy family
	Parivar Niyojan ke sadhan	Contraceptives
Flow chart	Atharah ke bad shadi, shadi me na kare jaldbaji	Marriage after eighteen not be early
Puppet	Ramsakhi ki shadi	Marriage of Ramsakhi
Story card	Chhota pariwar swastha pariwar	Small family healthy family
Innovative	-	Paper folding
Games	-	Color TV
	-	Puzzle game
	-	String Game
	-	Card Game

In the present study, IEC were based on interpersonal communication (IPC) techniques (face to face communication). Two IEC approaches were used for creating awareness with the help of IEC aids (Table 3.2).

Table: 3.2 Information Education Communication approaches

Sessions	*Issues*	
Personal meetings	Brief introduction of each issue – menstruation, marriage, reproduction, contraception, abortion	
Group sessions	Story telling	Menstruation, Contraception
	Discussion	Menstruation, Reproduction
	Group meeting	Marriage, Abortion, Reproduction

3.6.5 Pretesting of study tools

Before pretesting of study tools for its reliability, expert's advice from concerned area were taken. Interview schedule was discussed and corrections were made as per the guidelines suggested by expert of concerned area. Pretesting of study tools was done to get reliable and valid results from target group. The purpose of this pretesting was to remove errors and ambiguities from the finalized study tools. Prior to the finalization of study tools pretesting was done among a group of twenty women which was not the part of actual study sample. It was done in the gram panchayat of Jarauthi. The same was carried out with the help of Center of Continuing Adult Education and Extension AMU. It was done in two steps: Firstly, twenty interviews were taken. Modifications were made regarding specificity of certain questions. Appropriate improvements including restructuring of certain words as well as rephrasing of few questions and rearrangement of questions according to socio cultural and educational background of

the sample were incorporated. Secondly, self prepared IEC was conducted among the same group and required modification in terms of language and presentations were made. After modification both steps were again applied on the same group after a specific period.

3.7 Study data

Data among rural women was studied in following ways –

3.7.1 Entering in the field

Without any support and basic information about particular, it was not possible to enter in the field. For entering in the field, researcher had done various jobs. *Firstly,* visit to the center for Continuing Adult Education and Extension for collecting basic information regarding culture, tradition and nature of the people in rural area. From the starting of the study, occasionally visits were done with CCAEE personals in their adopted villages viz. *'Panjipur', 'Nagla Qila', 'Nagla Patwari', 'Jarauthi'* and *'Dohorra Mafi'* for understanding village and people living there. From this exercise researcher came to know that how to talk with rural people, how to manage visits for data collection in their busy schedule, how to create a warm relationship so that they can freely share their experiences. *Secondly,* for entering in the field, researcher took government authority letter in support so that local governing bodies could help the researcher to reach the rural women. Two separate reference letters were taken from highest governing body of their field - one from health department (Chief Medical Officer) and one from Panchayati Raj Institution (District Magistrate) (Annexure V).

Then, it was done in hierarchal order (Figure 3.4). After these exercises, the field work started with preliminary visits.

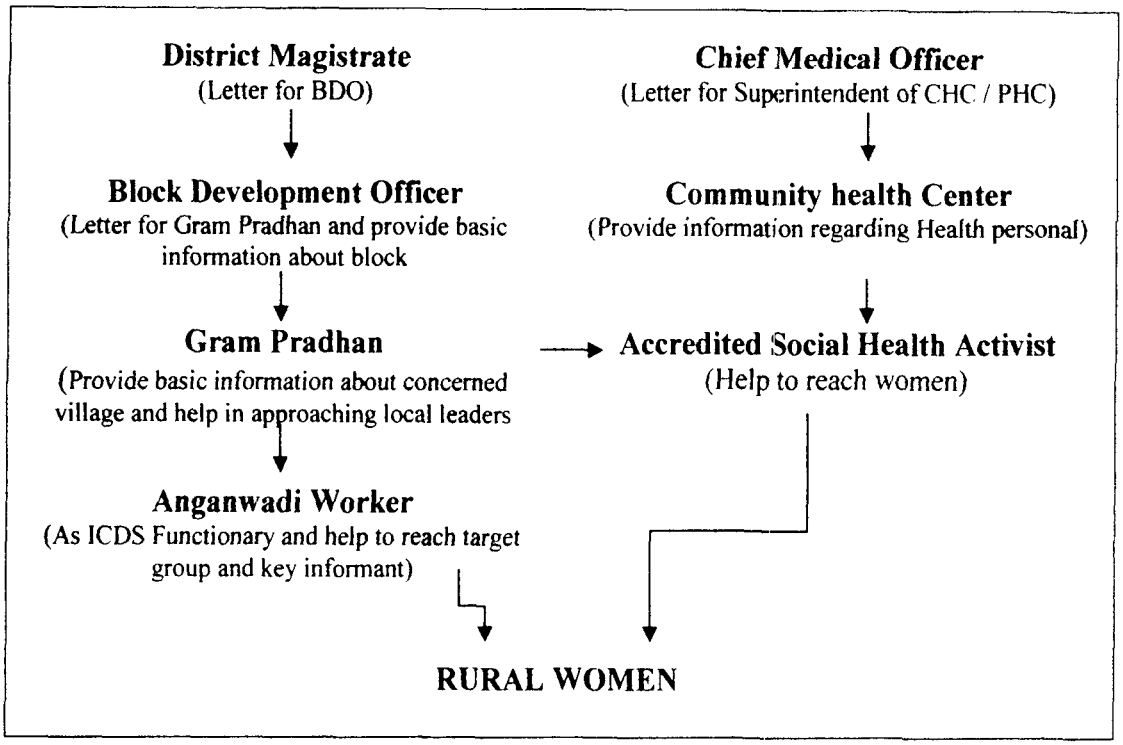


Figure 3.4 Layout of reaching to the target group

3.7.2 Rapport formation

Before collecting data, there was a need to overcome the social distance between researcher and target group because mutual understanding emerges only after bridging of social worlds. Social distance includes differences in relative power and can result in suspicion and lack of trust (Miller & Glassner, 1997). In order to narrow the social distance, there was need to build rapport with rural women by establishing trust and familiarizing, showing genuine interest, assuring confidentiality and not being judgmental. For the first visit to the informants, after introduction with rural women, researcher conducted an enjoyment and play cum education activity at every village. This

activity was based on different social problems such as girls' education, liquoring, mother and daughter in law relation, empowerment of women, which was not the part of actual IEC. Rural women also participated in this activity and they were encouraged to get involve by singing songs, dancing, story telling and playing. The purpose of this activity was to remove their hesitation so that they can freely share their experiences.

3.7.3 Data collection

After gaining trust and familiarity with rural women, data collection was started. The crucial stages followed for data collection are briefly described as follows-

Stage I Pre IEC period

Pre IEC data was collected using a specially designed pretested interview schedule. Data/samples pertaining to awareness and practice of gender health inequity, health status were collected and assessed prior to IEC. This data primarily formed the background for the programme ahead. Key areas and issues that were not known to sample were delved thoroughly with the aim of dispelling them in logical manner.

Stage II IEC Period

It was a transition period for moving from ignorance to awareness. In this stage, gender health inequity awareness was imparted. An intensive IEC intervention was carried out mainly through Inter Personal Communication (IPC) techniques for this purpose. Firstly, personal meetings were done. After that a time - schedule was prepared for conducting group counseling among women according to their convenience and were done with the help of IEC aids.

Stage III Post IEC period

This marked an evaluation period. After the process of imparting gender health inequity awareness among target group, it was again assessed using same method with modification that was employed to assess them at the pre intervention level.

For every stage of data collection time and place were chose convenient for women. Most of the women were interviewed at their residence after completing their household task. For working women they were share their time for interview in afternoon when they came for lunch at home. Interviews were carried out one by one. Festival time was also keep in mind. Survey could not be stopped. So keeping their values and tradition in consideration, it was managed that at the time of Hindu festival survey was conducted in Muslim community and at the time of Eld and Mohrram survey was conducted in other communities except Muslim.

3.8 Response rate

The overall response rate was 396 (88%), 54 women did not attend all the phases due to their personal reasons. These women were excluded from the study.

3.9 Data processing and data analysis

After the collection of data next step was to analyze information obtained from the sample. Data was subjected to analysis. For analyzing it, firstly data was properly edited, coded and verified with the help of code design which was self prepared for this purpose. The compiled data were entered into coding sheets and subsequently analyzed using

SPSS 17.0 package (IBM SPSS statistics 17.0). Per cent distribution of each of the responses for various individual aspects/questions included in the schedule was calculated and simple tables were drawn for representing it. In order to test the validity of hypotheses, various statistical inferences were made by which the significance of variables was ascertained. Following statistical techniques were used for this purpose –

- Frequency and percentages for making simple classifications of responses
- Wilcox signed rank test for impact of IEC
- Spearman Correlation (r_s) for highlighting relationship between gender health inequity and demographic characteristics
- Spearman Correlation (r_s) for highlighting relationship between gender health inequity and health of rural women

On the basis of these techniques generalization were made and null hypotheses were accepted or rejected at 0.05 and 0.01 level of significance. Graphical presentation of data was done with the help of bar and pie graph to established meaningful relationship between variables and to determine the gain in knowledge before and after implementation of interventions which have been appropriately explained.

3.10 Supporting organizations and persons

- Center of Continuing Adult Education and Extension (CCAEE), Aligarh Muslim university, Aligarh
- Indian Institute of young Inspirers (IIYI), Lucknow
- Mahila Sarvangeen Utkarsh Mandal (MASUM), Pune

- Statistics department of Aligarh District, Vikas Bhavan Aligarh.
- Administrative Officers of Aligarh District – District Magistrate, Block Development officer
- NRHM Health personal at village – Accredited Social Health Activist (ASHA)
- ICDS Personal - Anganwadi Worker (AWW) and Anganwadi Helper

3.11 Ethical Considerations

The objects of inquiry in study were human beings so extreme care was taken to avoid any harm to them. Three ethical issues were considered viz:

Informed consent: The consent process is essential that everyone involved in a research project, understands it (Campbell, Cleland, Collumbien, & Southwick, 1999). Researcher gave elaborate explanations to participant about the research activity, purpose and features, explained its procedure and benefits of participation. Then all participants gave their verbal 'informed consent' to partake in the study. They also provided their consent for the researcher to use a voice recorder during interviews to correct the natural limitations of human memories.

Confidentiality and Privacy: In social research, there is often the tendency that researchers present 'subjects' and the findings in rather demeaning ways, which may not reflect them and their situations (Soh, 2007). Thus, pseudonyms have been used in reporting the data in this study and protected respondents' right of privacy and confidentiality. Sufficient care was taken to conduct the individual interview at a place where the respondent could answer freely and satisfactorily.

Reciprocity: In qualitative fieldwork, the researcher gains access to insight through studying participants. Thus it is an exchange of knowledge, experiences and perceptions. In this social relationship, the researcher is indebted to the participants for sharing their experiences and time. As reciprocity researcher helped them in their work, provided additional information on those issues which were not covered in the study and sometimes became a good listener.

3.12 Problems faced by researcher during study

Transportation: A rural area presents its own problem of transportation. However, in Jawan, roads were well developed yet public transport facility is not appropriate. Some of the study villages were scattered and communication was by once a day bus, train, auto and horse cart services while in some villages there was no facility of public transport. To overcome this problem auto and horse cart were hired.

Unavailability of Government Officials: For entering in the field, permission and the support from government officials was necessary. But due to various reasons as Tahseel divas, posting of one official at two places etc. many times they were not available in their offices. Sometimes they became overworked then they refused to meet. To overcome this problem, researcher took phone numbers of offices and contact before visit.

Apathy of Health Personals towards their work: Before entering in the field it was decided to collect data with ongoing activities under JSY and ICDS. After entering in

villages it was found that village heath day and personal visits by ASHA (JSY) and AWW (ICDS) was not going on. They show apathy towards these activities.

3.13 Time Plan of study

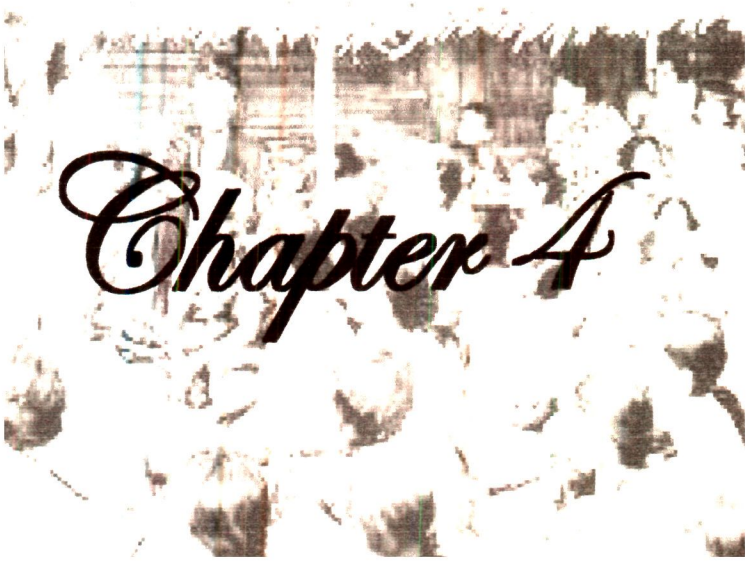
The study was carried out in fifty three months which included reference work, preliminary visits, development and pretesting of study tools, rapport formation, data collection, tabulation, data analysis and documentation of the study.

3.14 Limitations of the Study

- Small area has been covered because study considered control group that needed lots of effort to maintain.

- Only physical health was considered for assessing impact of gender health inequity on health as to understand mental illness was beyond the reach in the limited time and personal.

- All IEC tools could not be applied due to lack of resource persons.


Chapter 4

RESULTS

The data regarding present study "Assessment of awareness and impact study of IEC aids regarding gender health inequity among women of Jawan Block, Aligarh District, U.P." was collected, organized and analyzed using the scientific methodology described in previous chapter. The findings of the study are presented in this chapter under following sections:

4.1 Demographic characteristics of rural women

4.2 Gender heath inequity among rural women and impact of IEC

4.3 Association between awareness regarding gender health inequity among rural women and demographic characteristics

4.4 Health status of rural women and its association with gender health inequity practices

4.1 Demographic characteristics of rural women

In the present section, findings related to demographic characteristics of women in study area has been given in following heads –

4.1.1 Age of women

4.1.2 Education of women and their husbands

4.1.3 Occupation of women and their husbands

4.1.4 Type of family among women

4.1.5 Religion and caste of women

4.1.6 Socio economic status of women

4.1.1 Age of women

Age of women was categorized into four groups. Majority of the women (32.1%) in sample were from age 18 to 24 years, 29.3% of women were of age 25 to 29 years; while, 28.3% of women had their age between 30 and 34 years and the remaining 10.4 % women were at the age of 35 to 40 years (Table 4.1).

Table 4. 1 : Frequency distribution and percentage of women with respect to age

Age (years)	*Frequency*	*Percentage*
18 – 24	127	32.1
25 – 29	116	29.3
30- 34	112	28.3
35 – 40	41	10.4
Total	396	100.0

4.1.2 Education of women and their husbands

Educational attainment of women and their husbands has been given in table 4.2. It was found that 41.4% of the total women had never been to school as compared to 10.4% of the husbands who had never attended any school. It has been also shown in table that 1.3% of women had their education less than five years of schooling. On the other hand, educational data related to husbands indicates that 0.8 % of the husbands had their education less than five years of schooling. It was also found that 13.6% of women and 6.6% of the husbands had attended educational institutions for 5 to 7 years. Further, 11.9% of women and 19.7 % of their husbands had their education 8 to 9 years of schooling. Ten to eleven years of schooling had been completed by 12.6 % of women and 22.7 % of their husbands. Women who attended school, majority of them (19.2%) had

completed 12 or more years of education; likewise 39.9% of the women's husbands had completed 12 or more years of education (Figure 4.1).

Table 4. 2 : Frequency distribution and percentage of women and their husbands with respect to educational attainment

Years of schooling	*Women*		*Husbands*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
No Education	164	41.4	41	10.4
<5	5	1.3	3	.8
5 - 7	54	13.6	26	6.6
8 - 9	47	11.9	78	19.7
10 - 11	50	12.6	90	22.7
12 or more	76	19.2	158	39.9
Total	396	100.0	396	100.0

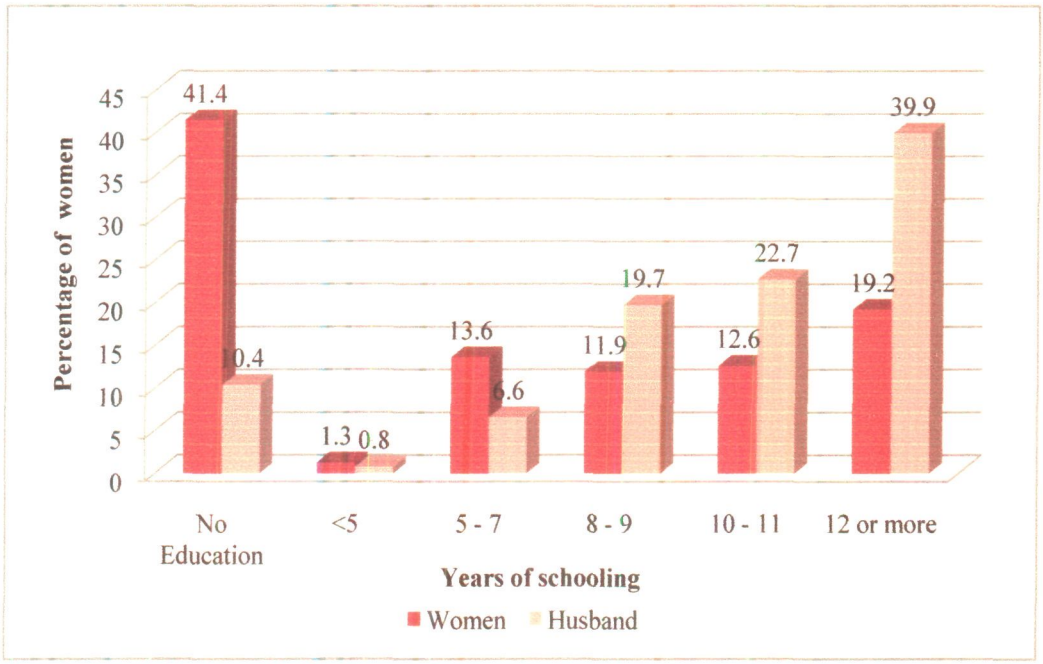


Figure 4.1 : Graphical presentation of percentage of women and their husbands according to their education

4.1.3 Occupation of women and their husbands

Regarding occupation, it was found that a vast majority of women (60.9%) were not involved in any kind of occupation and 25.3% of the women were involved in agriculture. In the sample 8.3% of the women were involved in salaried job, 1.3% of the women were involved in construction work, 4.3% of women were self employed (table 4.3). On the other hand the data related to husbands' occupation reveals that only 4.0% of the women's husbands were unemployed and 17.2 % of the women's husbands were involved in agriculture; 18.4% of women's husbands were involved in salaried job, only 2.0% of husbands were sales worker, 9.6% of husbands were professionals and 21% of husbands were construction worker, 4.8% of husbands were involved in production work, while 23% of husbands were self employed (Figure 4.2).

Table 4. 3 : Frequency distribution and percentage of women and their husbands with respect to job status/occupation

Occupation	*Women*		*Husbands*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Agriculture	100	25.3	68	17.2
Professional	-	-	38	9.6
Sales Worker	-	-	8	2.0
Salaried	33	8.3	73	18.4
Production worker	-	-	19	4.8
Construction work	5	1.3	83	21
Self-employed	17	4.3	91	23
Nothing	241	60.9	16	4.0
Total	396	100.0	396	100.0

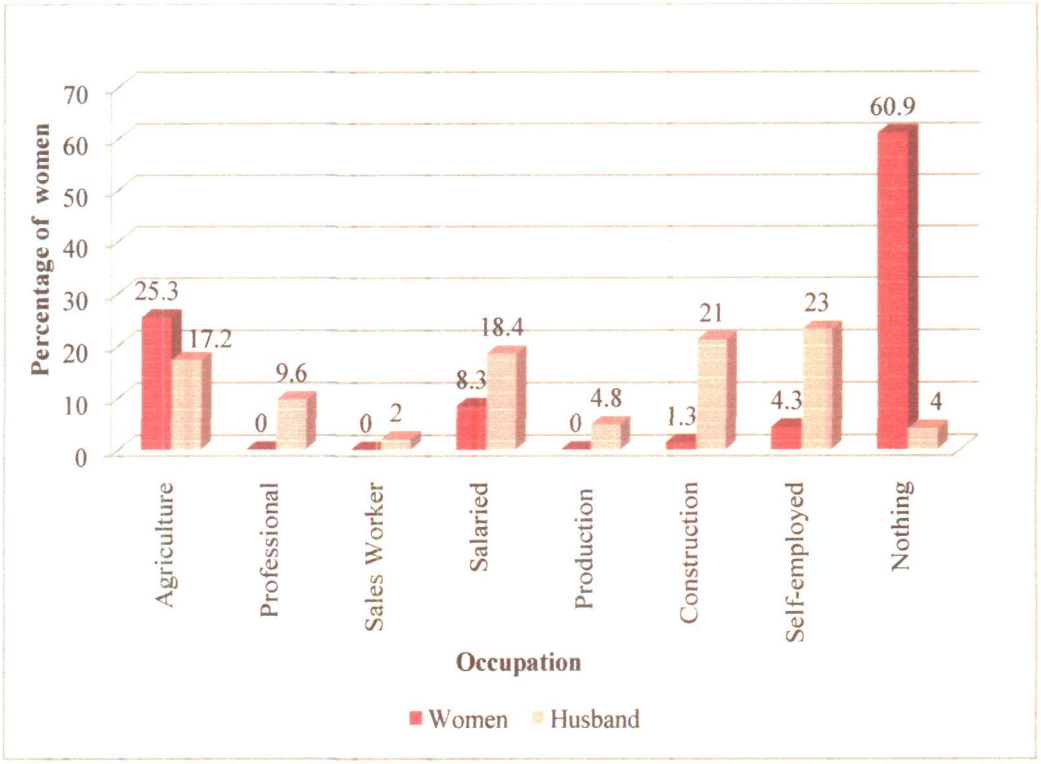


Figure 4.2 : Graphical presentation of percentage of women and their husbands according to their occupation

4.1.4 Type of family among women

It was found that 62.4% of women in the study area belonged to nuclear family and 37.6% of the women belonged to joint family (Table 4.4).

Table 4.4 : Frequency distribution and percentage of women residing in nuclear/joint family system

Type of family	*Frequency*	*Percentage*
Nuclear	247	62.4
Joint	149	37.6
Total	396	100.0

4.1.5 Religion and caste of women

It was found in the study that majority of women (95.7%) belonged to Hindu community and remaining women (4.3%) belonged to Muslim community (Table 4.5).

Data regarding caste indicates that in study sample 16.4 % of the women were from general caste, 35.1 % of the women were from backward caste, while majority of women (48.5%) were from schedule caste (Table 4.5).

Table 4. 5 : Frequency distribution and percentage of women with respect to their religion and caste

Religion and caste	*Frequency*	*Percentage*
Religion		
Hindu	379	95.7
Muslim	17	4.3
Total	396	100
Caste		
General	65	16.4
Backward	139	35.1
SC	192	48.5
Total	396	100

4.1.6 Socio economic status of women

Data regarding per capita income was categorized in four groups according to modified BG Prasad's classification. It was found that majority of women (52.5%) belonged to poor class, 31.8 % of women belonged to lower middle class, 8.8 % of women were very poor. Remaining (6.8%) were from upper middle class (Table 4.6).

Table 4. 6 : Frequency distribution and percentage of women with respect to their socio economic status

Socio economic status	*Frequency*	*Percentage*
Upper middle	27	6.8
Lower Middle	126	31.8
Poor	208	52.5
Very Poor	35	8.8
Total	396	100.0

4.2 Gender health inequity among women and impact of IEC

Data regarding awareness and practices of gender health inequity and impact of IEC on awareness regarding gender health inequity among rural women in study area has been given in this section. It has been categorized as follows:

4.2.1 Awareness and practices regarding menstruation

4.2.2 Awareness and practices regarding marriage

4.2.3 Awareness and practices regarding reproduction

4.2.4 Awareness and practices regarding contraception

4.2.5 Awareness and practices regarding abortion

4.2.1 Awareness and practices regarding menstruation

Pre IEC data regarding conceptual understanding of the process of menstruation has been given in table 4.7. Findings reveal that majority of women (66.4%) did not know about menstrual process and other had misconceptions like 'it just happens' (2.3%), it was a result of diseases (1.8%), curse upon them (3.5%), natural process (13.9 %), untouchable

process (4.5%). Only 7.6 % of rural women answered that menstruation was a physiological process (Figure 4.3).

Table 4.7 : Frequency distribution and percentage of women in respect to their awareness about menstruation

Awareness about menses	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Untouchable process	18	4.5	11	2.8
Natural process	55	13.9	22	5.6
Physiological process	30	7.6	304	76.8
Curse	14	3.5	9	2.3
Caused by disease	7	1.8	7	1.8
Just happens	9	2.3	6	1.5
Don't know	263	66.4	37	9.3
Total	396	100.0	396	100.0

$z = -13.867$; $p = 0.00 < 0.01$

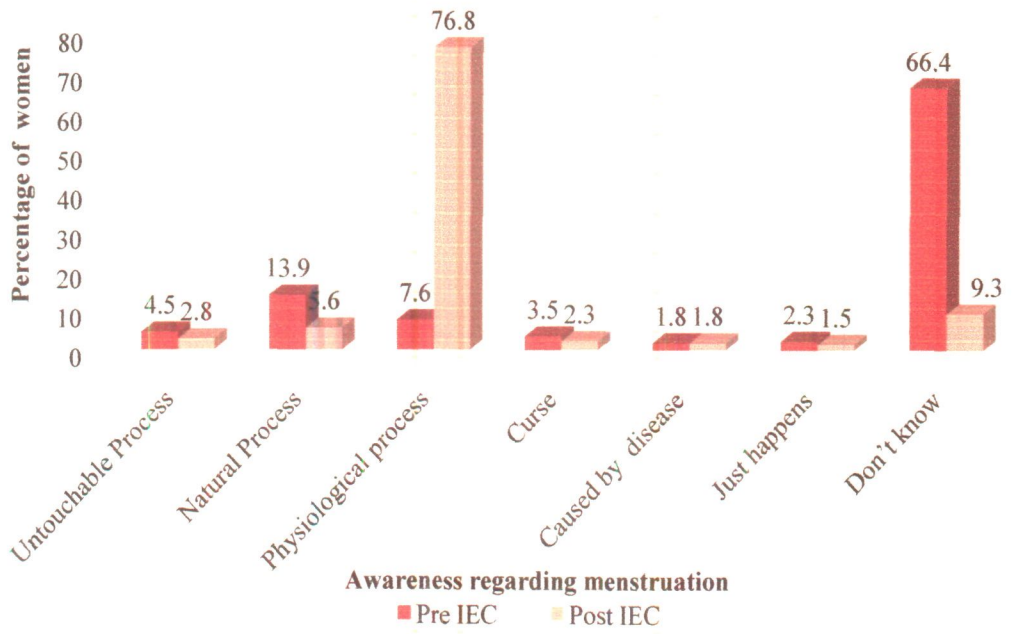


Figure 4.3 : Graphical presentation of percentage of women according to their awareness regarding menstruation

Post IEC data on awareness regarding menstruation depicts that according to 76.8 % of rural women, menstruation was a physiological process while 1.5% of women answered as 'it just happens', 1.8% women thought that it was caused by a disease, 2.3% of women considered it as a 'curse upon them', 5.6 % of respondent indicated it as natural process, 2.8 % of women thought that it was untouchable process, 9.3% of women still responded as don't know about it. Further, wilcoxon signed rank test shows significant improvements ($z = -13.867$, $p < 0.01$) in awareness about menstruation among rural women after implementation of IEC aids.

Table 4.8 indicates bathing during menstruation among rural women. Pre IEC data reveals that majority of women (80.1%) bathed daily, while 10.4% of women bathed IInd day of menstruation, 9.6% of women bathed IIIrd day of menstruation.

Table 4.8 : Frequency distribution and percentage of women in respect to bathing during menstruation

Day of bath	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
IInd Day	41	10.4	24	6.1
IIIrd day	38	9.6	4	1.0
Daily	317	80.1	368	92.9
Total	396	100.0	396	100.0

$z = -5.558$; $p = 0.000 < 0.01$

Post IEC data indicates that majority of rural women (92.9%) bathed daily, 6.1% of women bathed IInd day of menstruation, 1% of women continued to bath IIIrd day of menstruation (table 4.8). Wilcoxon signed rank test revels significant ($z = -5.558$; $p <$

0.01) improvements in knowledge regarding bathing at time of menstruation among rural women after implementation of IEC aids (Figure 4.4).

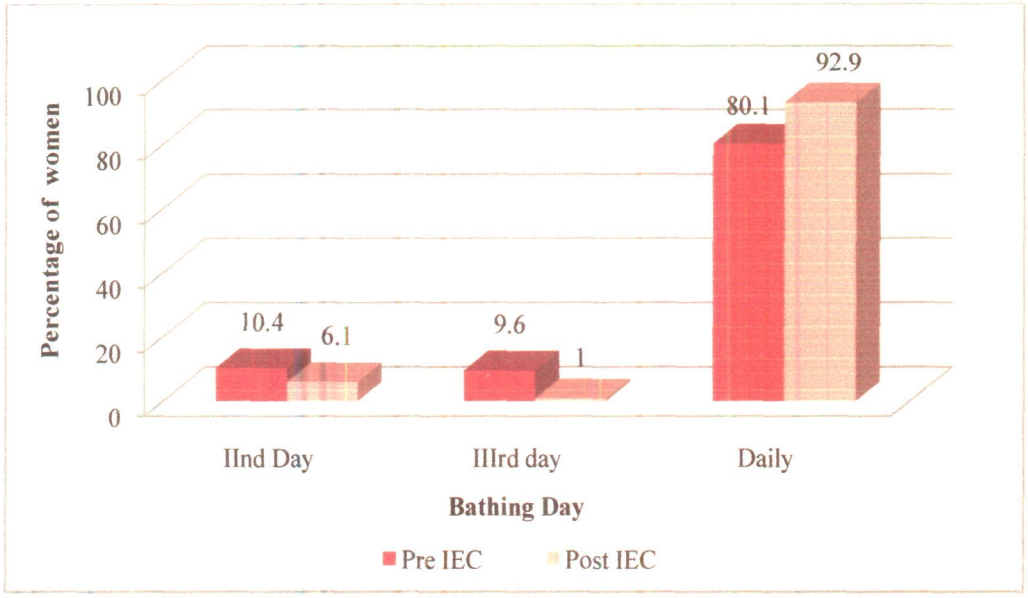


Figure 4.4 : Graphical presentation of percentage of women according to day of bathing during menstruation

Table 4.9 reveals type of absorbent material during menstruation among rural women. Pre IEC data indicates that most of the rural women (81.3%) used old rejected cloth without washing them during monthly menstrual cycle while 18.7% used readymade napkins. Post IEC data indicates that most of the rural women (73.5%) used old rejected cloth after washing during monthly menstrual cycle, 16.9% of women used readymade napkins. Only 9.6% of women used old rejected cloth without washing (Table 4.9). Wilcoxon signed rank test indicates significant improvements ($z = -5.980$; $p < 0.01$) in knowledge regarding use of absorbents during menstruation among rural women after implementation of IEC aids.

Table 4.9 : Frequency distribution and percentage of women in respect to type of absorbent material during menstruation

Absorbent material	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Old cloth without washing	322	81.3	38	9.6
Sanitary Napkins	74	18.7	67	16.9
Old cloth after washing	-	-	291	73.5
Total	396	100.0	396	100.0

$z = -5.980$; $p = .000 < 0.01$

Change of absorbents by rural women has been given in table 4.10. Pre IEC data indicates that majority of women (90.9%) changed menstrual absorbent daily and they did not reuse it, followed by 5.6% of women used one absorbent during whole period, remaining 3.5% of women changed it according to the condition. Post IEC data reveals that majority of women (98.7%) changed menstrual absorbents daily and they did not reuse it, followed by 1.3% of women changed it according to the condition (Table 4.10). In this case, no significant improvement ($z = -1.860$; $p > 0.01$) in change of absorbents during menstruation among rural women was observed after implementation of IEC aids.

Table 4.10 : Frequency distribution and percentage of women in respect to change of absorbents during menstruation

Change of absorbents	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
One in one menstruation	22	5.6	-	-
Daily change	360	90.9	391	98.7
Depends on condition	14	3.5	5	1.3
Total	396	100.0	396	100.0

$z = -1.860$; $p = .063 > 0.01$

Table 4.11 indicates restriction during menstruation among rural women, 48.2% of women stated that there was no restriction among them, followed by 35.9% of women were having restrictions on eating, 15.9% of women were having restriction in performing daily household chores. After IEC 79.3% of women stated that there was no restriction, 8.6% of women were having restrictions on eating. Further 12.1% of women were restricted to do daily household chores (Figure 4.5).

Table 4.11 : Frequency distribution and percentage of women in respect to restrictions during menstruation

Restrictions	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
To do household task	63	15.9	48	12.1
To eat	142	35.9	34	8.6
Nothing	191	48.2	314	79.3
Total	396	100.0	396	100.0

$z = -8.417$; $p = .000 < 0.01$

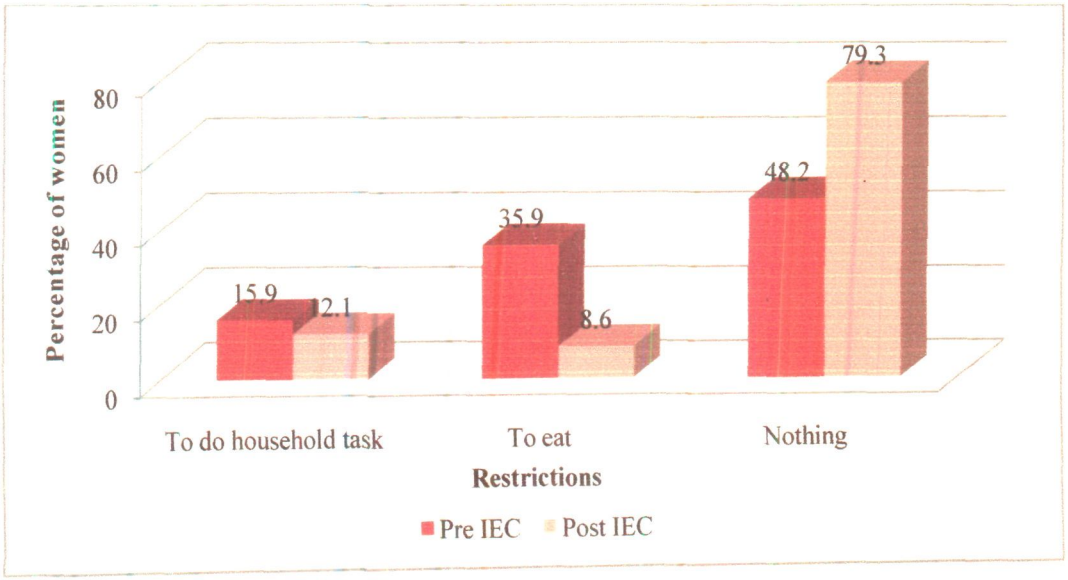


Figure 4.5 : Graphical presentation of percentage of women according to restrictions faced by during menstruation

Wilcoxon signed rank test indicates significant improvements ($z = -8.417$; $p < 0.01$) in restrictions *i.e.* after implementation of IEC aids, fewer restrictions during menstruation was found among women.

4.2.2 Awareness and practices regarding marriage

In this section, awareness and practices regarding marriage has been given under following heads:

A. Age of marriage among women

B. Awareness and opinion of rural women regarding early marriage

A. Age of marriage among women

In the study area, it was observed that 16.9% of women got married when they were less than 15 years. Data depicts that majority of women (42.9%) got married between ages 15 to 17, 30.6% of the women got married within ages of 18 to 20 and just 9.6% of women got married at age 21 to 24 (Table 4.12).

Table 4. 12 : Frequency distribution and percentage of women in respect to their age of marriage

Age of marriage (years)	*Frequency*	*Percentage*
< 15	67	16.9
15- 17	170	42.9
18 – 20	121	30.6
21- 24	38	9.6
Total	396	100.0

B. Awareness and opinion of rural women regarding early marriage

Awareness regarding right age of marriage among women has been given in table 4.17; pre IEC data indicates that 20.2% of women did not know about the right age of marriage. According to 8.6% of women, right age of marriage was before eighteen, according to 35.6% of women, right age of marriage was eighteen, while according to 32.8 % of women right age of marriage for girls was after eighteen. Remaining, 2.5% of women gave other answers. Further, Post IEC data reveals that according to majority of women (88.6%) right age of marriage was eighteen. Only 0.8 % of women said that right age of marriage was before eighteen, while 6.3% of women said that right age of marriage was after eighteen. While, 2.0% of women gave other answers, only 2.3% of women were unaware about it (Figure 4.6). Wilcoxon signed rank test indicates significant improvements ($z = -10.293$; $p < 0.01$) in awareness regarding right age of marriage among women after implementation of IEC aids.

Table 4. 13 : Frequency distribution and percentage of women in respect to their awareness regarding age of marriage

Age of marriage (years)	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Before18	34	8.6	3	0.8
18	142	35.9	351	88.6
After 18	130	32.8	25	6.3
Other	10	2.5	8	2.0
Don't know	80	20.2	9	2.3
Total	396	100.0	396	100.0

$z = -10.293$; $p = .000 < 0.01$

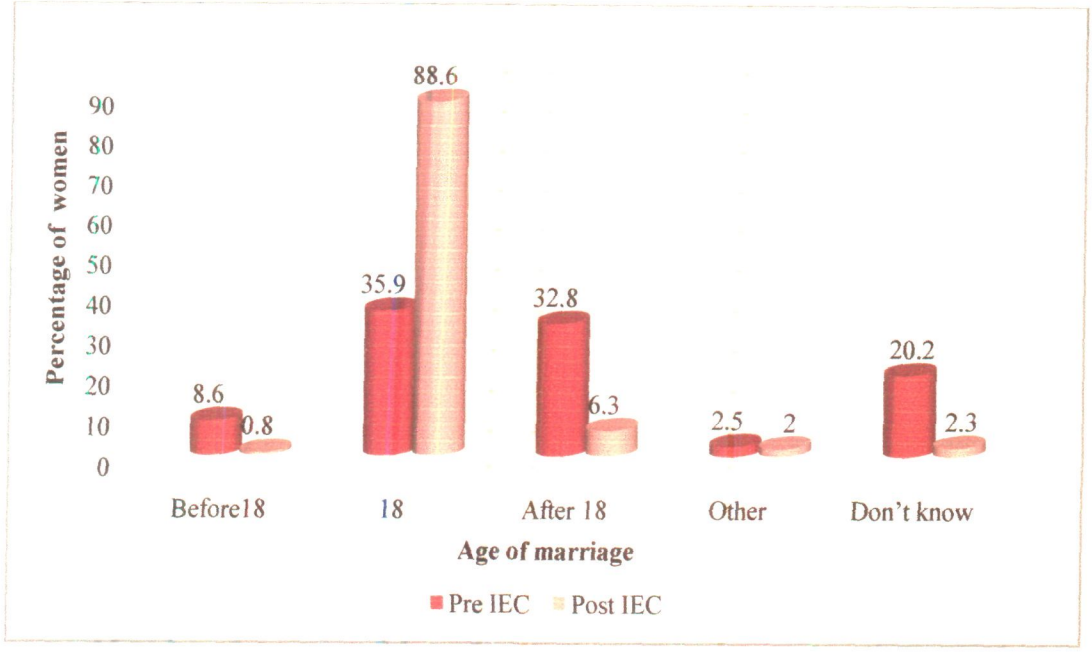


Figure 4.6 : Graphical presentation of percentage of women according to their awareness regarding age of marriage

Opinion of women regarding early marriage of girls has been given in table 4.14. While asking about opinion on marriage at 14 -17 years, according to majority of women (48.7%) it was wrong, according to 13.9% of women it was right, 9.3% of women gave other answers. While, 28% of women were not aware about it and they did not able to give any opinion. While, post IEC data has been presented in table 4.14 on opinion on early marriage at indicates that in the opinion of majority of women (90.2%), it was wrong, only 1% of women responded it as right. While 2.3 % of women gave other answers and 6.6% of women did not give any opinion, just said 'don't know' (Figure 4.7). Wilcoxon signed rank test indicates significant improvements ($z = -10.143$; $p < 0.01$) in women's opinion on early marriage after implementation of IEC aids.

Table 4. 14 : Frequency distribution and percentage of women in respect to their opinion on early marriage

Opinion on early marriage	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Wrong	193	48.7	357	90.2
Right	55	13.9	4	1.0
Other	37	9.3	9	2.3
Don't know	111	28.0	26	6.6
Total	396	100.0	396	100.0

$z = -10.143$; $p = .000 < 0.01$

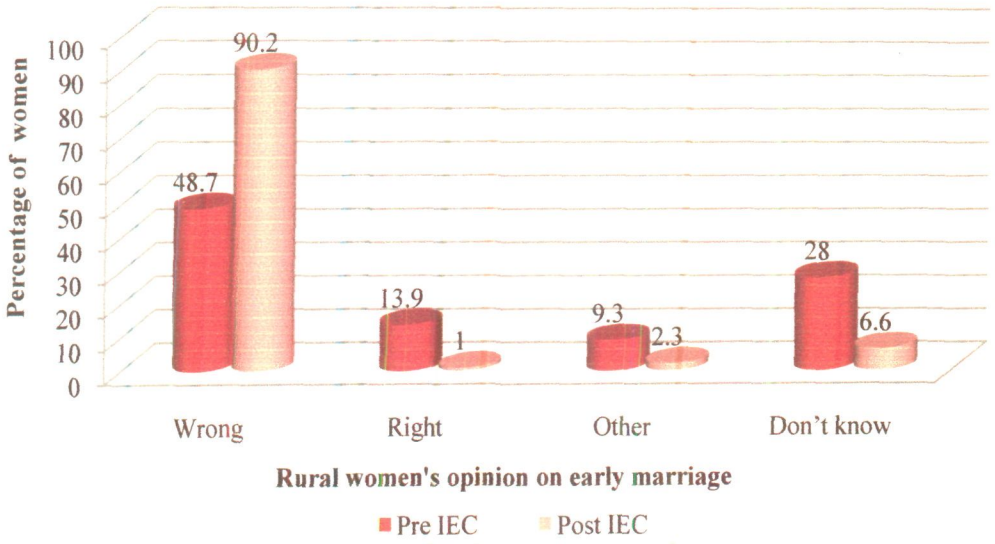


Figure 4.7 : Graphical presentation of percentage of women according to their opinion on early marriage

Women's awareness regarding the effect of early marriage on their health has been given in table 4.15. It was found that before IEC, majority of women (69.9%) were not aware about it, only 4% were aware about its effect on development of health and said that early marriage stop physical development of girls. While, 6.3% of women said weakness,

12.1% of women said that early marriage leads early pregnancy that may cause death and disability in both mother and newborn. Only, 3.3% of women told RTI / STD, 2% of women gave all the answers. Remaining 2.3% of women said that ther is no effect of early marriage on health of women.

Table 4. 15 : Frequency distribution and percentage of women in respect to their awareness regarding effect of early marriage on women's health

Effect on health	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Stop development	16	4.0	80	20.2
Weakness	25	6.3	55	13.9
Early pregnancy death/ disability	48	12.1	118	29.8
RTI/STD	13	3.3	5	1.3
Above All	8	2.0	67	16.9
Nothing	9	2.3	6	1.5
Don't know	277	69.9	65	16.4
Total	396	100.0	396	100.0

$z = -9.184$; $p = .000 < 0.01$

After IEC, it was found that majority of women were aware about effects of early marriage on women's health. Among them 20.2% of women were aware about 'stop physical development', 13.9% of women were aware about 'weakness', 29.8% were aware about 'early pregnancy death and disability', 1.3% of women were aware about RTI/STD, 16.9% of women were aware about all. Only 1.5% of women said 'nothing' and remaining 16.4% were not aware about it. Wilcoxon signed rank test observes statistically significant improvements ($z = -9.184$; $p < 0.01$) in women's awareness regarding effect of early marriage on women's health after implementation of IEC aids.

4.2.3 Awareness and practices regarding reproduction

In this section, awareness and practices regarding reproduction has been tabulated under following heads:

A. Women's awareness regarding number of children and gender preferences

B. Awareness among women regarding pregnancy and birth interval

C. Pregnancy consent and impact of closed birth interval on health of women

D. Awareness and use of obstetric care among women

A. Women's awareness regarding number of children and gender preferences

Women were enquired about ideal number of children a couple should have. Findings have been given in table 4.16.

Table 4. 16 : Frequency distribution and percentage of women in respect to their awareness regarding number of children in family

Number of children	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
1	6	1.5	9	2.3
2	150	37.9	343	86.6
3 or more	150	37.9	44	11.1
No response	90	22.7	-	-
Total	396	100.0	396	100.0

$z = -12.858$; $p = .000 < 0.01$

Above table indicates that before IEC, 37.9% of women considered two to be the ideal number of children. Similarly, 37.9% of women also considered three or more to be the ideal number of children. Only 1.5% of women were in favour of one child, while no

response was given by 22.7% of women. After IEC, majority of women (86.6%) were in favour of two children, 2.3% of women considered one as the ideal number of children. Remaining 11.1 % of women were in favour of three or more as the ideal number of children (Figure 4.8). Statistically significant improvements ($z = -12.858$; $p < 0.01$) in women's awareness regarding number of children after implementation of IEC aids was observed.

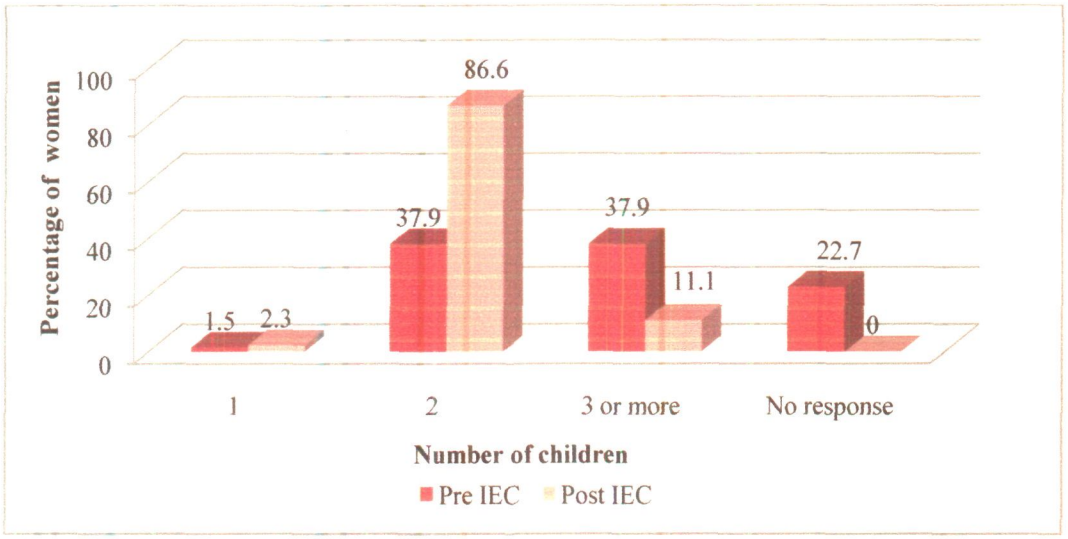


Figure 4.8 : Graphical presentation of percentage of women according to their awareness regarding number of children

Table 4.17 indicates the gender preference of the children among women. Pre IEC data reveals that majority of women (46.2%) considered one boy or one girl as ideal gender composition of their children. However 27.8% desired more sons than daughters, while 2.3% or women wanted more daughters than sons. A desire for only son was noted among 19.2% of women compared to 0.8% who wanted only daughters and for remaining 3.8% of women sex did not matter. After IEC, it has been found that majority of women (60.9%) considered one boy or one girl both as ideal gender composition of

their children. Only 2% desired more sons than daughters. A desire for only son was noted among 2.3% of women. However, sex did not matter for remaining 34.8% of the women (Figure 4.9). Wilcoxon signed rank test indicates statistically significant ($z = -12.858$; $p < 0.01$) change in women's gender preferences of children after implementation of IEC aids.

Table 4. 17 : Frequency distribution and percentage of women in respect to gender preferences of child

Gender preference	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
More boys fewer girls	110	27.8	8	2.0
Fewer boys more girls	9	2.3	-	-
All boys	76	19.2	9	2.3
All girls	3	0.8	-	-
Both	183	46.2	241	60.9
Sex does not matter	15	3.8	138	34.8
Total	396	100.0	396	100.0

$z = -12.858$; $p = .000 < 0.01$

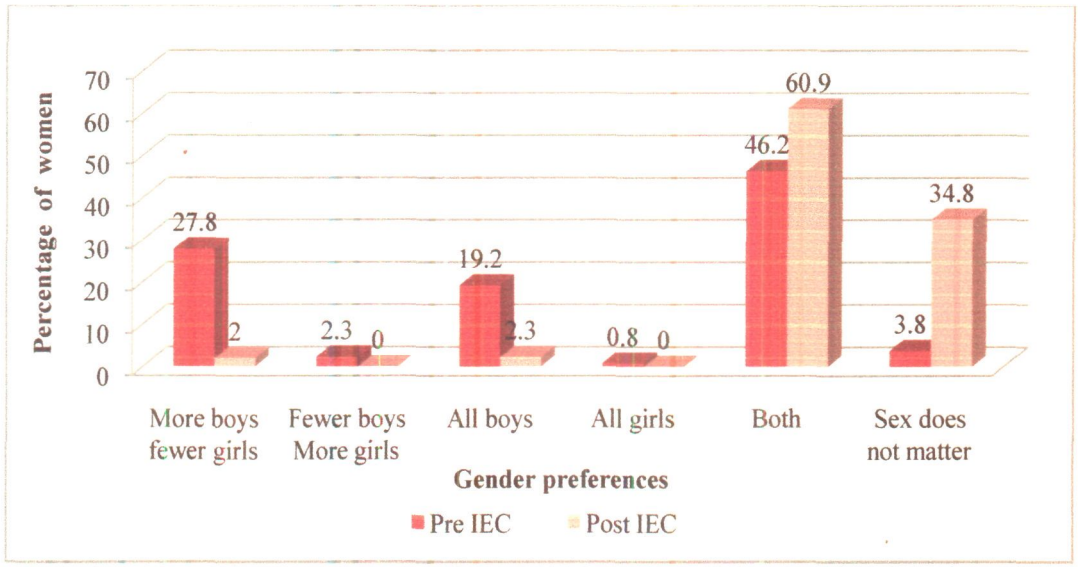


Figure 4.9 : Graphical presentation of percentage of women according to gender preference of child

Further, women were also enquired regarding the number of children they had. Majority of women (36.1%) stated that they had more than three children followed by 32.1% of women had one child, 18.4% of women had two children, 13.4% of women had three children (Table 4.18).

Table 4. 18 : Frequency distribution and percentage of women in respect to number of living children

Number of children	*Frequency*	*Percentage*
1	127	32.1
2	73	18.4
3	53	13.4
3 +	143	36.1
Total	396	100.0

B. Awareness among women regarding pregnancy and birth interval

Table 4.19 points out towards women's awareness regarding age of first pregnancy. Pre IEC data reveals that majority of women (85.9%) did not know about the right age of pregnancy. According to 1.5% of women < 20 was the right age of pregnancy, while according to 8.8% of women < 22 was the right age of pregnancy. Further, < 24 and 24 or after as right age of pregnancy were considered by 2.0% and 1.8% of women respectively. While, after IEC, it was observed that majority of women (83.6%) considered < 22 as right age of pregnancy and according to 10.4% of women, 24 years or after was the right age of pregnancy. While, < 20 years and < 24 years were considered by 0.8 % and 2.3% of women respectively. Remaining 3% of women did not know about it (Figure 4.10). Wilcoxon signed rank test indicates that there was a statistically significant

improvements (z = 17.178, p = .000 < 0.01) in women's awareness regarding age of first pregnancy after implementation of IEC aids.

Table 4. 19 : Frequency distribution and percentage of women in respect to their awareness regarding the age of first pregnancy

Age of pregnancy (Years)	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
< 20	6	1.5	3	.8
< 22	35	8.8	331	83.6
< 24	8	2.0	9	2.3
24 or After	7	1.8	41	10.4
Don't know	340	85.9	12	3.0
Total	396	100.0	396	100.0

z=17.178, p=.000 < 0.01

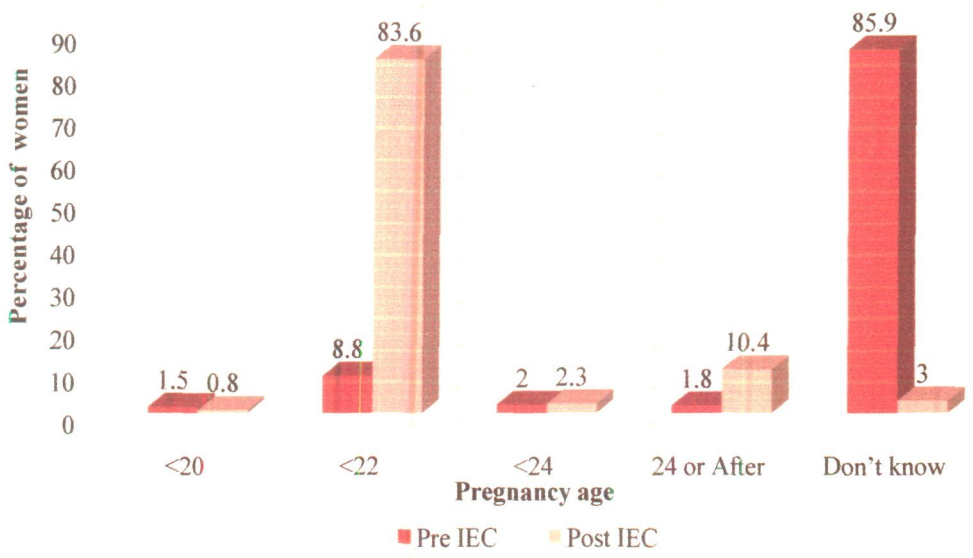


Figure 4.10 : Graphical presentation of percentage of women according to their awareness regarding the age of first pregnancy

Further, study also found the age of first pregnancy among rural women. Table 4.20 indicates the age of first pregnancy of women. It was found that among majority of women (31.3%) first pregnancy occurred before the age of eighteen. While, 30.8% of women got first time pregnant before the age of twenty, 22.5 % of women got first time pregnant before the age of 22, 7.8% of women got first time pregnant before the age of 24. Remaining 7.6% of women's first pregnancies occurred at the age of 24 years or after.

Table 4. 20 : Frequency distribution and percentage of women in respect to their age of first pregnancy

Age of pregnancy (years)	*Frequency*	*Percentage*
<18	124	31.3
<20	122	30.8
<22	89	22.5
<24	31	7.8
24 or after 24	30	7.6
Total	396	100.0

Table 4. 21 : Frequency distribution and percentage of women in respect to the number of pregnancies among women

Number of pregnancies	*Frequency*	*Percentage*
1	92	23.2
2	58	14.6
3	41	10.4
4	75	18.9
5	64	16.2
6 +	66	16.7
Total	396	100.0

Above table 4.21 indicates data regarding number of pregnancies. It was found that majority of women (31.3%) had one pregnancy, 14.6% of women had two pregnancies and 10.4% of women had three pregnancies. While, 18.9% of women had four pregnancies and 16.2% of women had five pregnancies. Remaining 16.7% of women had six or more pregnancies.

Table 4. 22 : Frequency distribution and percentage of women in respect to interval between births of two children

Interval (months)	*Frequency*	*Percentage*
<18 months	205	51.8
18 - 35 months	53	13.4
> 36	31	7.8
Not applicable	107	27.0
Total	396	100.0

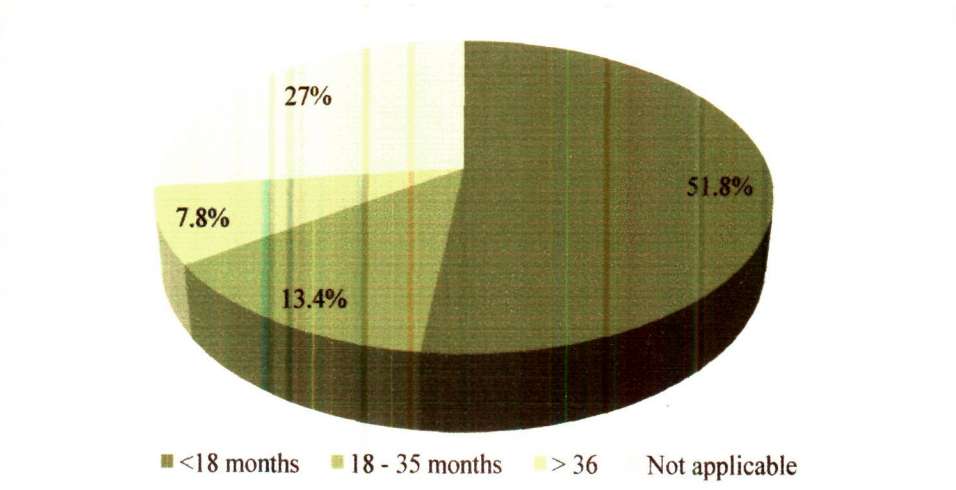


Figure 4.11 : Graphical presentation of percentage of women according to interval between births of two children

Above table 4.22 indicates intervals between two births of children among women. It was

found that among 51.8% of women's births of two children occurred within less than 18 months and among 13.4% of women births occurred between18 and 35 months. Only among 7.8% of women, births occurred 36 months after a previous birth. Remaining 27.0 % of women had only one child (Figure 4.11).

Table 4.23 reveals the women's awareness regarding interval between births of two children. Pre IEC data indicates that majority of women (61.1%) were not aware regarding the interval between births of two children. However, 5.1% of women were considered < 18 months as correct interval between births of two children and 7.1 % of women considered 18 – 35 months as correct interval between births of two children. While, 22.7% of women considered > 36 months as correct interval and remaining 4 % of women gave other answers like whenever it become possible.

Table 4. 23 : Frequency distribution and percentage of women in respect to their awareness regarding interval between births of two children

Interval (months)	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
<18 months	20	5.1	6	1.5
18 - 35 months	28	7.1	89	22.5
> 36	90	22.7	263	66.4
Other	16	4.0	18	4.5
Don't know	242	61.1	20	5.1
Total	396	100.0	396	100.0

$z = -12.634$, $p = .000 < 0.01$

Post IEC data indicates that majority of women (66.4%) stated that there should be > 36 months of interval between births of two children. However, 1.5% of women were considered < 18 months as correct interval between births of two children and 22.5 % of

women considered 18 – 35 months as correct interval between births of two children and 4.5 % of women gave other answers like whenever it become possible. Remaining 5.1 % of women were not aware about it (Figure 4.12). There was a statistically significant improvements ($z = -12.634$, $p < 0.01$) in women's awareness regarding interval between births of two children after implementation of IEC aids.

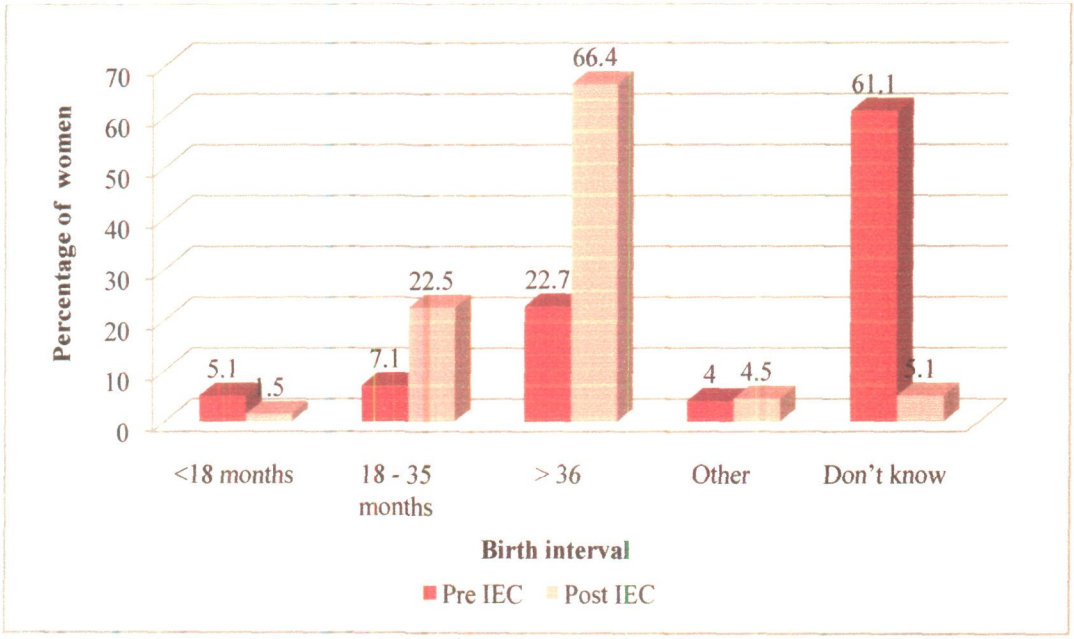


Figure 4.12 : Graphical presentation of percentage of women according to their awareness regarding interval between births of two children

C. Pregnancy Consent and impact of closed birth interval on health of women

Table 4.24 indicates the consent of last pregnancy among women. Regarding fertility planning, 53.8% women reported that their last birth was wanted, 42.2% stated their last child was not wanted while the remaining 4% said that they did not think about it.

Table 4. 24 : Frequency distribution and percentage of women in respect to their pregnancy consent

Consent	*Frequency*	*Percent*
Yes	213	53.8
No	167	42.2
Don't think	16	4.0
Total	396	100.0

Awareness regarding the consequences of closed birth interval between two children has been given table 4.25. It was found that majority of women (53.8%) were aware about bad consequences of closed birth interval between two children as compared to 45.5 % of women who were not aware about it, remaining 0.8% of women stated good consequences of it. Post IEC data indicates that 79.8% of women were aware regarding bad consequences of closed birth interval between two children as compared to 20.2% of women were not aware about it (Table 4.25). Wilcoxon signed rank test indicates statistically significant improvements ($z = -7.462$, $p < 0.01$) in women's awareness regarding consequences of closed birth interval between two children after implementation of IEC aids.

Table 4. 25 : Frequency distribution and percentage of women in respect to their awareness regarding the consequences of closed birth interval

Effect of closed birth interval	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Good	3	.8	-	-
Bad	213	53.8	316	79.8
Don't Know	180	45.5	80	20.2
Total	396	100.0	396	100.0

$z = -7.462$, $p = .000 < 0.01$

D. Awareness and use of obstetric care among women

Women's awareness regarding antenatal care has been given in table 4.26. Only 2.8% of women had complete information about antenatal care including full package of antenatal care and number of visits, 56.6% of women had incomplete information about antenatal care. Remaining 40.7% of women were not aware about it.

Table 4. 26 : Frequency distribution and percentage of women in respect to their awareness regarding antenatal care

Awareness about ANC	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Complete awareness	11	2.8	114	28.8
Incomplete awareness	224	56.6	265	66.9
No awareness	161	40.7	17	4.3
Total	396	100.0	396	100.0

z = -13.904, p= .000 < 0.01

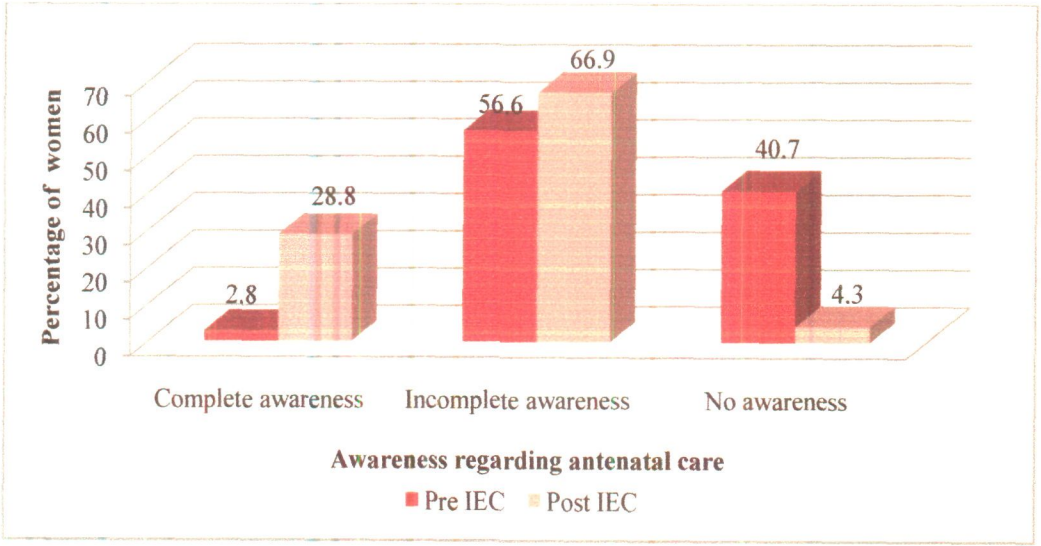


Figure 4.13 : Graphical presentation of percentage of women according to their awareness regarding antenatal care

Table 4.26 also indicates that after implementing IEC, 28.8% of women had complete information regarding antenatal care, while 66.9% of women had incomplete information about it. Remaining 4.3% of women were unaware about it. Wilcoxon signed rank test indicates that there was a statistically significant ($z = -13.904$, $p < 0.01$) improvement in women's awareness regarding antenatal care after implementation of IEC aids (Figure 4.13).

Table: 4. 27 Frequency distribution and percentage of women in respect to receive antenatal care

Received ANC	*Frequency*	*Percentage*
Complete ANC	27	6.8
Incomplete ANC	299	75.5
No ANC	70	17.7
Total	396	100.0

Above table 4.27 indicates the distribution of women who received antenatal care for the most recent live birth of their children. It was found that only 6.8% of women got complete antenatal care, whereas 75.5% of women got incomplete antenatal care. Remaining 17.7 % of women did not get antenatal care.

Table 4. 28 : Frequency distribution and percentage of women in respect to the place of delivery

Place of delivery	*Frequency*	*Percent*
Home	224	56.6
Government Hospital	66	16.7
CHC	44	11.1
Private Hospital	62	15.7
Total	396	100.0

Above table 4.28 indicates the place of rural women's delivery for the most recent live birth of their children. It was found that most of the women's (56.6%) deliveries were done at home and local birth attendant of the village performed this task. Rest of the deliveries were performed at government hospital (16.7%), community health center (11.1%), private hospital (15.7%) (Figure 4.14).

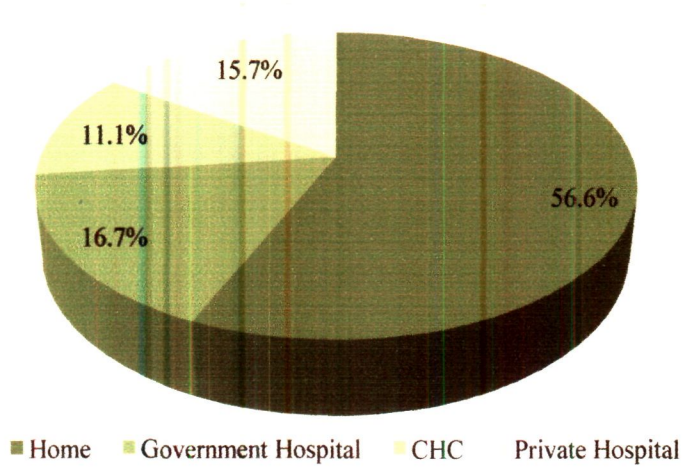


Figure 4.14 : Graphical presentation of percentage of women according to their place of delivery

Women's awareness regarding place of delivery has been given in table 4.29. Before IEC, 46.7% of women said that home was suitable place for delivery, followed by 21.2% of women were aware to go to hospital for delivery, 18.9% of women were aware to go private hospital, 10.6% of women gave other answers and remaining 2.5% of women were aware to go CHC for delivery. After IEC, it was found that only 4% of women said that home was suitable place for delivery, while 56.3% of women were aware to go to government hospital for delivery, 10.4% of women were aware to go private hospital, 25.3% of women gave other answers and remaining 4% of women were aware to go CHC for delivery Wilcoxon signed rank test indicates statistically significant (z = -7.263,

$p < 0.01$) improvements in women's awareness regarding place of delivery after implementation of IEC aids (Figure 4.15).

Table 4. 29 : Frequency distribution and percentage of women according to their awareness regarding place of delivery

Place of delivery	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Home	185	46.7	16	4.0
Government hospital	84	21.2	223	56.3
CHC	10	2.5	16	4.0
Private hospital	75	18.9	41	10.4
Other	42	10.6	100	25.3
Total	396	100.0	396	100.0

$z = -7.263$, $p = .000 < 0.01$

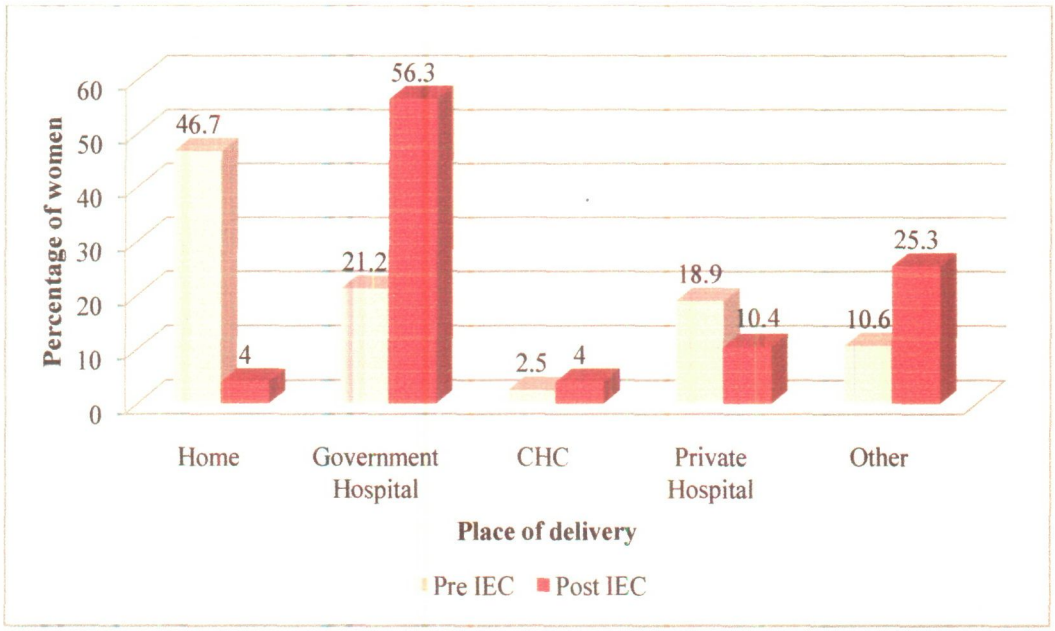


Figure 4.15 : Graphical presentation of percentage of women according to their awareness regarding place of delivery

4.2.4 Awareness and practice regarding contraception

Awareness about contraception among women was assessed, findings has been given in table 4.30. Pre IEC data indicates that 63.1% of women were aware about contraception, while 36.9% were not aware about it. On the other hand, post IEC data indicates that 97.5% of rural women were aware about contraception, 2.5% of women were not aware about it. Wilcoxon signed rank test indicates that there is a statistically significant improvement ($z = -11.577$, $p < 0.01$) in women's awareness regarding contraception after implementation of IEC aids.

Table 4. 30 : Frequency distribution and percentage of women in respect to their awareness about contraception

Awareness about contraception	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Aware	250	63.1	386	97.5
Not aware	146	36.9	10	2.5
Total	396	100.0	396	100.0

$z = -11.577$, $p = .000 < 0.01$

Present study assessed the use of contraceptives among rural women and has been presented in table 4.31. It was observed that majority of women (59.3%) were not using any contraceptive before IEC. Only 40.7% of women reported use of at least one contraceptive method. Among them 7.8% of women reported to use female sterilization while 5.3% were using pills, 3.5% were using IUD, 1.3% were using injectable, 21.5% were using condoms and 1.3 of women were using rhythm. Post IEC data reveals that majority of rural women started to use contraceptives. Female and male sterilization were reported to use by 13.6% and 2.8% of women respectively.

Table 4.31 : Frequency distribution and percentage of women in respect to use of contraceptives

Use of contraceptives	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Female Sterilization	31	7.8	54	13.6
Male Sterilization	-	-	11	2.8
Pill	21	5.3	25	6.3
IUD	14	3.5	16	4.0
Injectable	5	1.3	8	2.0
Condom	85	21.5	108	27.3
Rhythm	5	1.3	7	1.8
Nothing	235	59.3	167	42.2
Total	396	100.0	396	100.0

$z = -7.163$, $p = .000 < 0.01$

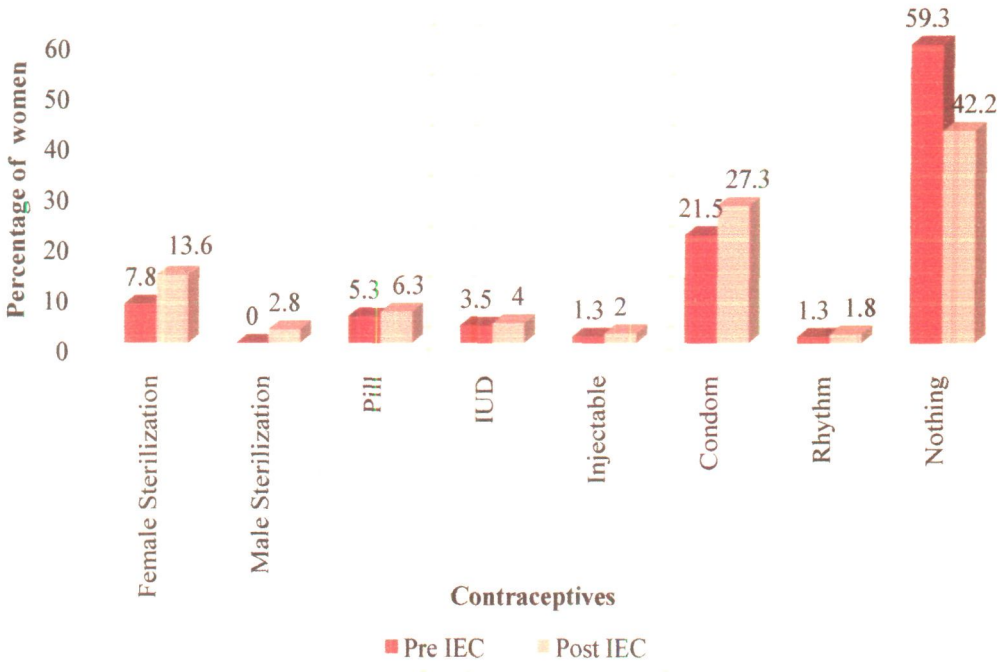


Figure 4.16 : Graphical presentation of percentage of women according to use of contraceptives

Further, 6.3% of women were using contraceptive pills, 4.0% of women were

using IUD, 2.0% of women were using injectable, 27.3% were using condom and 1.8% were using rhythm. Out of total respondent 42.2% of women were not using any contraceptives. Wilcoxon signed rank test indicates statistically significant ($z = -7.163$, $p < 0.01$) improvements in women's use of contraception after implementation of IEC aids (Figure 4.16).

Table 4.32 : Frequency distribution and percentage of women in respect to reasons for not using contraceptives

Reasons for not using contraceptives	*Frequency*	*Percentage*
Not having information	83	21.0
Not available	6	1.5
Husband disapproval	39	9.8
Feel shame	3	0.8
Don't need	104	26.3
Not Applicable	161	40.7
Total	396	100.0

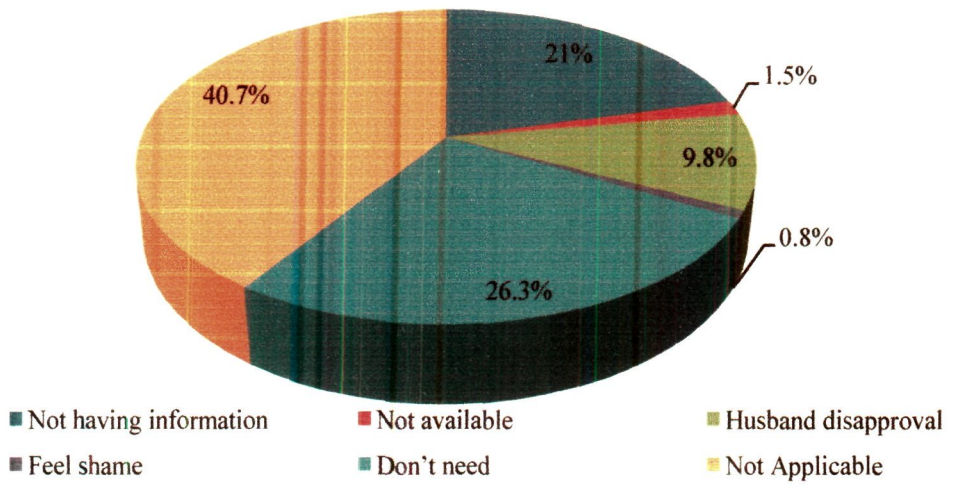


Figure 4.17 : Graphical presentation of percentage of women according to reasons for not using contraceptives

Above table 4.32 indicates the before IEC reasons for not using contraception among women who were not using it. Majority of women (26.3%) stated that they did not use contraception because they did not have need to use it, 21% of women stated that they did not have information about it followed by husbands' disapproval (9.8%), non availability (1.5%), felt shame (0.8%) (Figure 4.17).

Table 4.33 indicates the decision making regarding contraception among women. Pre IEC data indicates that 3.8% of women stated that use of contraceptives was their decision, while 29.3% of women stated that their husbands took decision regarding use of contraceptives. Further, 41.7% of women reported that women and their husbands both took decision regarding use of contraceptives, while according to 25.3% of women nor wife neither husband took decision about it.

Table 4. 33 : Frequency distribution and percentage of women in respect to decision making regarding contraception

Person who took decision	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Women	15	3.8	51	12.9
Husband	116	29.3	72	18.2
Both	165	41.7	261	65.9
None	100	25.3	12	3.0
Total	396	100.0	396	100.0

$z = -5.063$, $p = .000 < 0.01$

After IEC, 12.9% of women stated that to use contraceptives was their decision, while 18.2% of women stated that their husbands took decision regarding use of contraceptives. Further, 65.9% of women reported that women and their husbands both took decision

regarding use of contraceptives (Figure 4.18). Wilcoxon signed rank test indicates statistically significant improvements ($z = -5.063$, $p < 0.01$) in women's decision making regarding contraception after implementation of IEC aids.

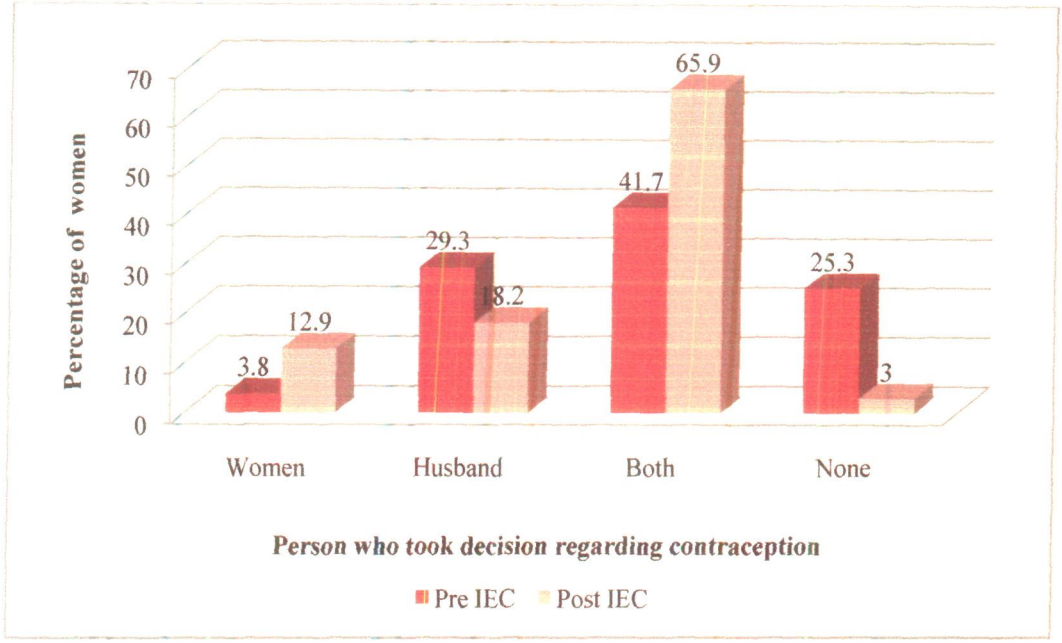


Figure 4.18 : Graphical presentation of percentage of women in respect to decision making regarding contraception

Table 4.34 : Frequency distribution and percentage of women in respect to side effects of contraceptives

Side effects of contraceptives	*Frequency*	*Percentage*
Allergy	11	2.8
Amenorrhea	4	1.0
Irregular menstruation	43	10.9
Weakness	3	.8
Lower abdomen pain	4	1.0
Nothing	96	24.7
Not applicable	235	58.8
Total	396	100.0

Above table 4.34 describes the side effects of contraceptives. Regarding the side effects of contraception, 24.7% of women reported that they had no side effects of using any contraceptives. On the other side 10.9% of women reported irregular menstruation followed by 2.8% allergy, 1% of women reported amenorrhea, 1% of women reported lower abdomen pain, 0.8% of women reported weakness (Figure 4.19).

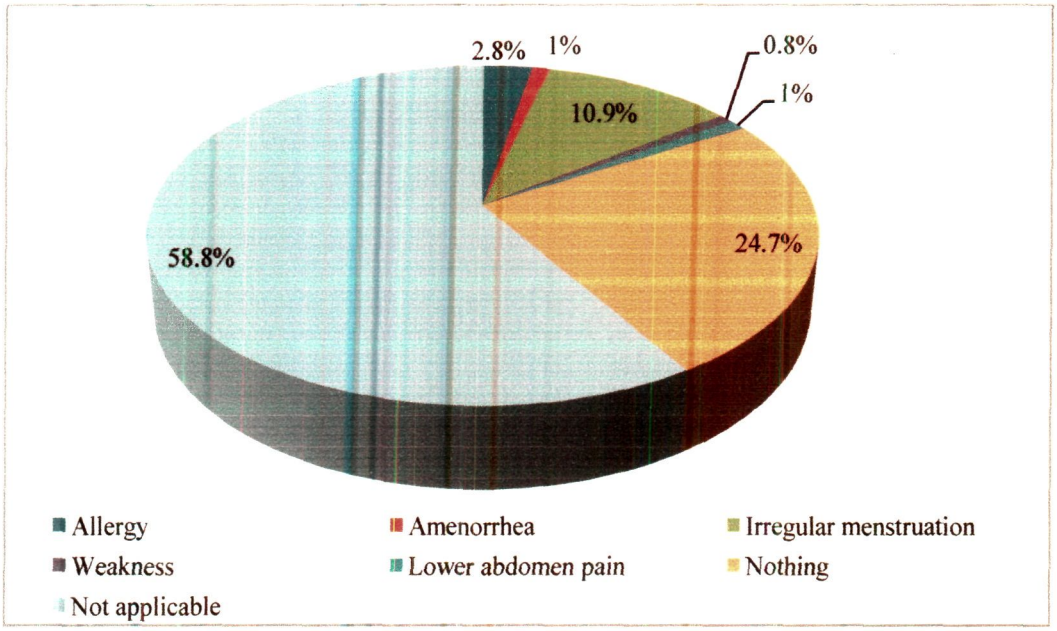


Figure 4.19 : Graphical presentations of percentage of women according to side effects of contraceptives

Table 4.35 reveals that women shared problems related to contraceptives or not. Pre IEC data indicates that only 2.3 % of women were sharing their problems and 11.4% of women were not sharing problems, whereas, 27% of women did not have any problem to share it with husband. Post IEC data indicates that 15.9% of women were sharing their problems related to contraception and 3% of women were not sharing their problems with their husbands. While 38.9% of women did not have any problem to share and 42.2% of

women were not using contraceptives. Wilcoxon signed rank test indicates statistically significant improvements (z = -7.902, p = .000 < 0.01) in women's sharing problems regarding contraception after implementation of IEC aids.

Table 4.35 : Frequency distribution and percentage of women in respect to share problem with husbands

Share problem with husband	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Yes	9	2.3	63	15.9
No	45	11.4	12	3.0
Don't need	107	27.0	154	38.9
Not applicable	235	59.3	167	42.2
Total	396	100.0	396	100.0

z = -7.902, p = .000 < 0.01

4.2.5 Awareness and practices regarding abortions

Women's opinion regarding abortions has been given in table 4.36. Before IEC, 11.1% of women reported that abortion was right while 35.1% of women reported it as wrong. On the other hand 7.1% of women gave other answers. Further, 46.7% of women were unaware about abortions so they did not give any opinion. Post IEC data reveals that according 3.5% of women's abortions was right while according to 75.3% of women it was wrong. While7.1% of women gave other answers. Further, 12.4% of women did not give any opinion (Figure 4.20). Wilcoxon signed rank test indicates statistically significant improvements (z = -10.519, p < 0.01) in women's opinion on abortion after implementation of IEC aids.

Table 4. 36 : Frequency distribution and percentage of women in respect to their opinion on abortion

Opinion on abortion	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Right	44	11.1	14	3.5
Wrong	139	35.1	298	75.3
Other	28	7.1	35	8.8
Don't know	185	46.7	49	12.4
Total	396	100.0	396	100.0

$z = -10.519$, $p = .000 < 0.01$

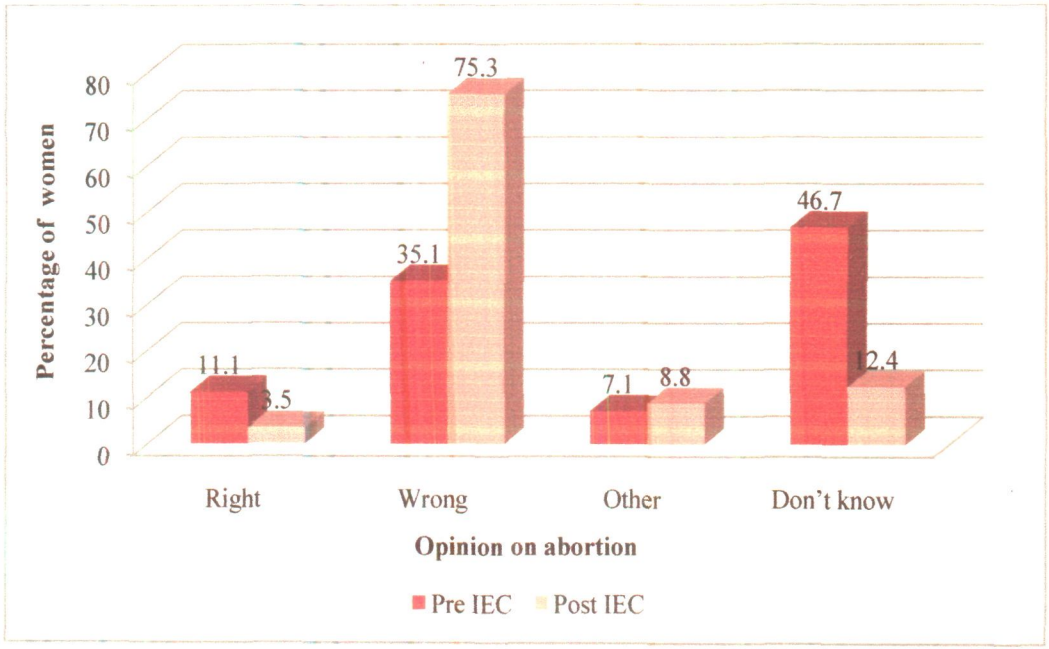


Figure 4.20 : Graphical presentation of percentage of women according to their opinion on abortion

Table 4.37 reveals the number of abortions; findings depict that 13.4% of women of all interviewed women had experienced one abortion over their lifetime, 7.8% of women had experienced two abortions. Majority of women (78.8%) experienced none of the abortion.

Table 4.37 : Frequency distribution and percentage of women in respect to number of abortion

Number of abortion	*Frequency*	*Percentage*
None	312	78.8
One	53	13.4
Two	31	7.8
Total	396	100.0

Table 4.38 : Frequency distribution and percentage of women in respect to reason for practicing abortion

Reason of practicing abortion	*Frequency*	*Percentage*
Didn't want more child	39	9.8
Due to girl fetus	42	10.6
Doctors' suggestion	3	0.8
Not applicable	312	78.8
Total	396	100.0

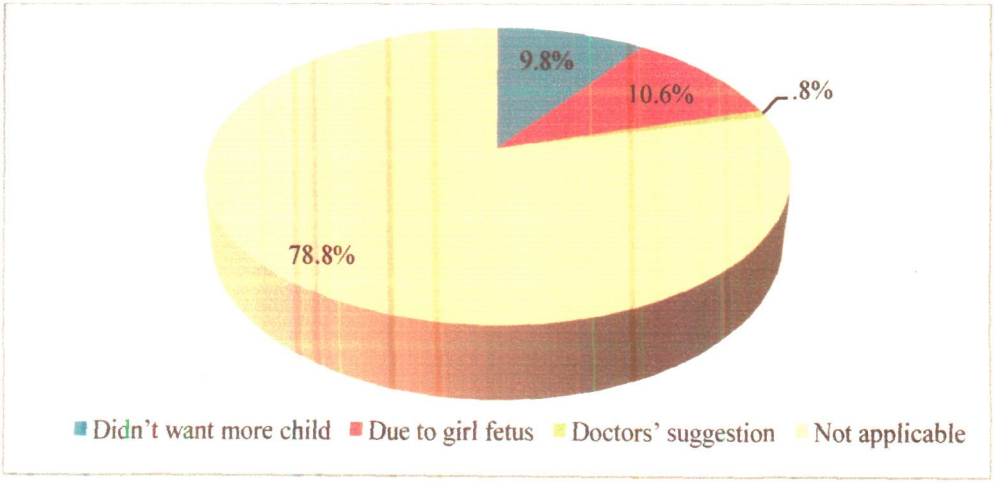


Figure 4.21 : Graphical presentations of percentage of women according to reasons for practicing abortion

Above table 4.38 depicts the reasons of practicing abortions among women. Findings reveals that main reason for seeking abortion among rural women was 'don't need any more daughter' (10.6%) and 9.8% of women mentioned that 'don't need any more child'. Only 0.8% of women seek abortion on doctor's advice (Figure 4.21).

Table 4. 39 : Frequency distribution and percentage of women in respect to place of abortion

Place of abortion	*Frequency*	*Percentage*
Government Hospital	4	1.0
CHC/ PHC	3	0.8
Private Hospital	58	14.6
At home	16	4.0
Other	3	0.8
Not applicable	312	78.8
Total	396	100.0

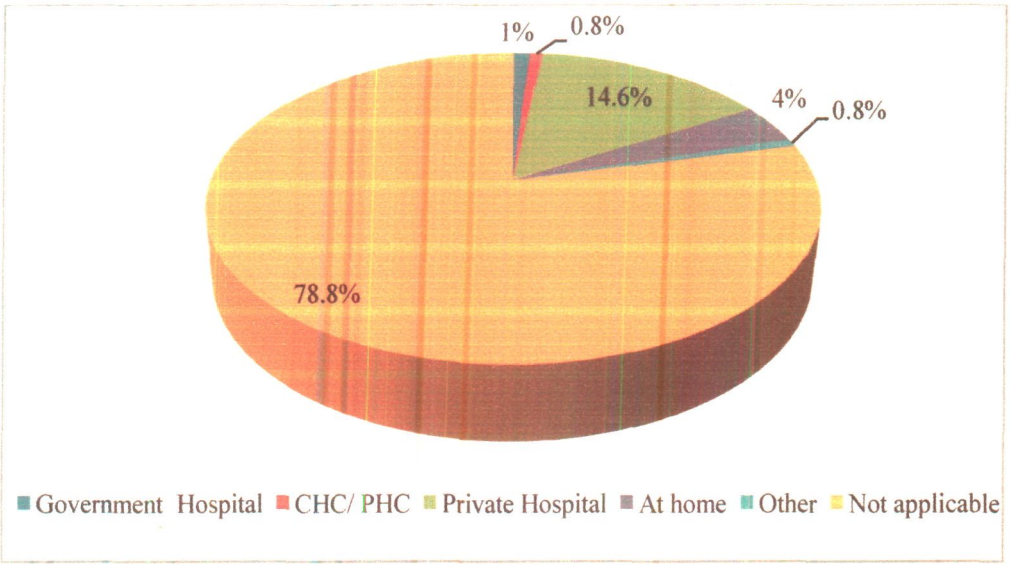


Figure 4.22 : Graphical presentation of percentage of women according to place of abortion seek by them

Above table 4.39 reveals the place of abortion. Findings depicts that 14.5% of women had sought pregnancy termination form private hospitals. Successful abortions had been performed by doctors, 1% of women accessed government hospitals followed by CHC/ PHC (0.8%), unqualified providers (0.8%). Self introduced of hard material in vagina was used for inducing abortion by 4% of women (Figure 4.22).

Table 4.40 : Frequency distribution and percentage of women according to health problems after abortion

Health problems after abortion	*Frequency*	*Percentage*
Severe Bleeding	10	2.5
Infertility	2	.5
Chronic pain	8	2.0
Incomplete abortion	28	7.1
None	36	9.1
Not applicable	312	78.8
Total	396	100.0

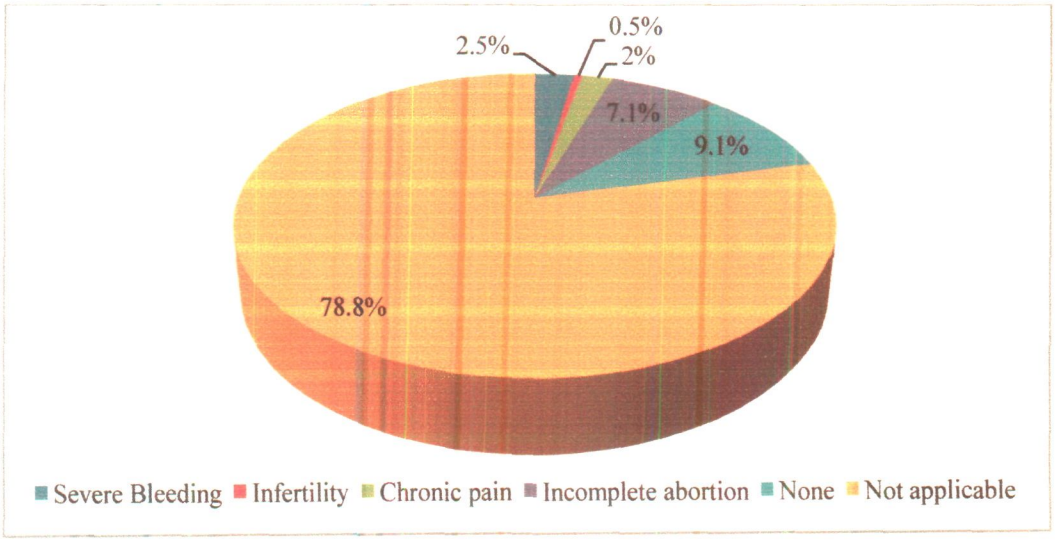


Figure 4.23 : Graphical presentation of percentage of women according to health problems faced by them after abortion

Above table 4.40 indicates the health problem faced by women after abortion. Women who practiced abortion over a life time, among them 9.1% of women reported that they did not face any problem after abortion, 7.1 % of women reported incomplete abortion, 2.5% of women had severe bleeding after abortion , 2.0% of women chronic pain, 0.5% of women had infertility (Figure 4.23).

Study assessed the awareness regarding health consequences of abortions among women. Before IEC, majority of women were not aware about consequences of abortions on health while 2.3% of women stated 'nothing'. Further, 14.1 % of women reported RTI/ STD followed by 12.6% of women infertility and 11.1% of women weakness (Table 4.41).

Table 4.41 : Frequency distribution and percentages of women in respect to their awareness regarding effect of abortion on health

Effect of abortion on health	*Pre IEC*		*Post IEC*	
	Frequency	*Percentage*	*Frequency*	*Percentage*
Infertility	50	12.6	91	23.0
RTI/STD	56	14.1	116	29.3
Weakness	44	11.1	56	14.1
All	-	-	62	15.7
Nothing	9	2.3	9	2.3
Don't Know	237	59.8	62	15.7
Total	396	100.0	396	100.0

$z = -10.848$, $p = .000 < 0.01$

Post IEC data indicates that most of the women became aware regarding consequences of abortion on health. About 29.3% of women reported RTI/STD followed by infertility (23%), weakness (14.1%), all above (15.7%). 'Nothing' was stated by 2.3% of women.

Only 15.7% of women were not aware about it (Figure 4.23). Wilcoxon signed rank test indicates that statistically significant ($z = -10.848$, $p < 0.01$) improvements in women's awareness regarding consequences of abortion after implementation of IEC aids.

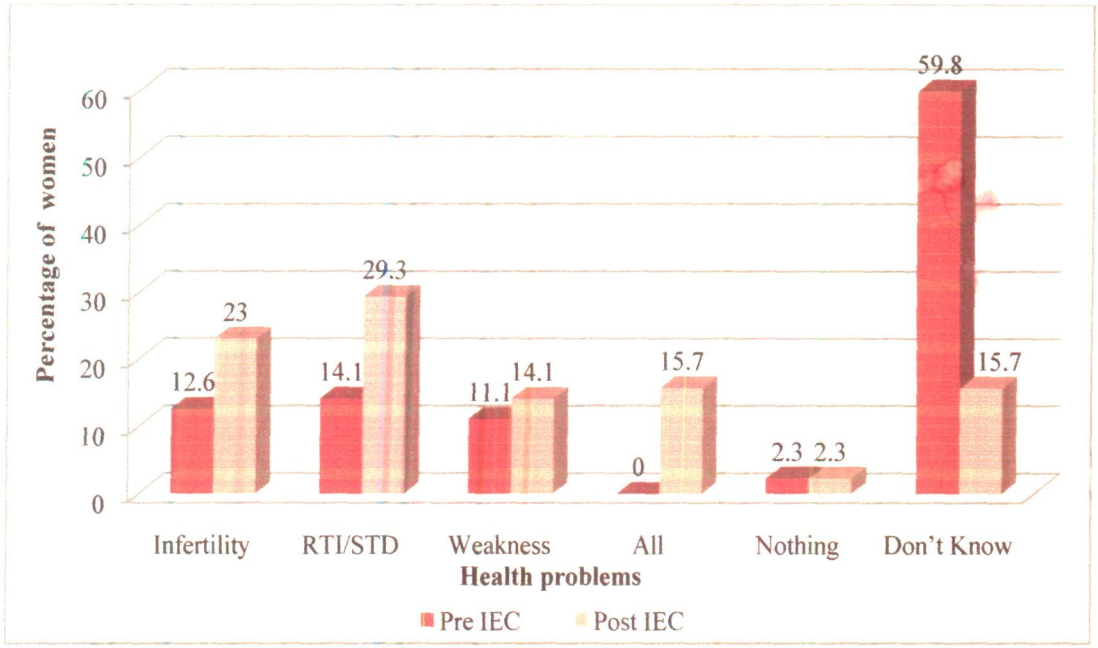


Figure 4.24 : Graphical presentation of percentage of women according to awareness regarding effect of abortion on health

In the present study, tables 4. 7 - 4.11, 4.13 – 4.17, 4.19, 4.23, 4.25, 4.26 4.29 – 4.31, 4.33, 4.35, 4.36, 4.41 reveal significant impact of IEC aids among rural women regarding -

- Menstruation - Awareness about menstruation, bathing during menstruation, use of absorbents during menstruation, restrictions during menstruations.

- Marriage - Awareness regarding right age of marriage, women's opinion on early marriage, awareness regarding the effect of early marriage on women's health.

- Reproduction- Awareness regarding number of children in family, gender preferences, women's awareness regarding age of pregnancy, birth interval, women's awareness regarding consequences of closed birth interval, awareness regarding antenatal care, place of delivery.

- Contraception - Awareness of contraception, use of contraception, decision regarding contraception, women's sharing problems regarding contraception.

- Abortions - opinion on abortions, awareness regarding consequences of abortions.

This implies that **the first null hypothesis,** *i. e. impact of IEC aids regarding gender health inequity on women is not significant,* was rejected at 0.01 level of significance.

4.3 Association between awareness regarding gender health inequity among rural women and demographic characteristics

Present study established association between selective demographic characteristics and awareness regarding gender health inequity among rural women. Demographic characteristics such as age of women, education and occupation of women, religion and socio economic status were considered for establishing relationship with pre IEC and post IEC awareness regarding gender health inequity among rural women.

Table 4.42 shows the correlation coefficient between socio demographic characteristics and awareness regarding menstruation before and after IEC among women. Findings indicate that the pre IEC awareness about menstruation was positively correlated with age of women (r_s= .110, $p < 0.05$), religion (r_s = .147, $p < 0.01$) and socio economic status of women (r =.283, $p < 0.01$). Negative but significant relationship was found between pre

IEC awareness regarding menstruation among women and education (r_s = -.240, p< 0.01) and occupation of women (r_s =-.116, p < 0.05). On the other hand, post IEC awareness regarding menstruation among women was found to be insignificantly correlated with age of women (r_s = .030, p > 0.05), religion (r_s = .053, p > 0.05), socio economic status of women (r_s =.005, p > 0.05), education (r_s = -.005, p > 0.05) and occupation of women (r_s = .007, p > 0.05).

Table 4.42 : Correlation coefficient between awareness about menstruation and demographic characteristics (n=396)

Demographic characteristics	*Awareness about menstruation*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.110*	.029	.030	.553
Education	-.240**	.000	.005	.916
Occupation	-.116*	.021	.007	.887
Religion	.147**	.003	.053	.297
Socio Economic Status	.283**	.000	.005	.919

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.43 indicates association between demographic characteristics and bathing at time of menstruation among rural women. Findings indicate that the before IEC bathing at the time of menstruation was insignificant with age (r_s = -.042, p > 0.05), education (r_s = .093, p >0.05) and occupation of women (r_s = -.096, p > 0.05). Further, significant relationship was found between before IEC bathing during menstruation and socio economic status (r_s =.-.121, p < 0.05) and religion (r_s = - .367, p < 0.01). On the other side, post IEC bathing at the time menstruation was insignificantly correlated with age (r_s = .049, p > 0.05), occupation (r_s = .004, p > 0.05) and socio economic status (r_s = -.072, p > 0.05) of

women, whereas significantly correlated with education (r_s = .123, p < 0.05) and religion of women (r_s = - .383, p < 0.01).

Table 4.43 : Correlation coefficient between bathing during menstruation and demographic characteristics (n=396)

Demographic characteristics	*Bathing during menstruation*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.042	.408	.049	.332
Education	.093	.065	.123*	.014
Occupation	-.096	.056	.004	.931
Religion	-.367**	.000	-.383**	.000
Socio economic status	-.121*	.016	-.072	.152

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.44 : Correlation coefficient between use of absorbent material during menstruation and demographic characteristics (n=396)

Demographic characteristics	*Use of absorbent material*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.249**	.000	-.139**	.005
Education	.446**	.000	.220**	.000
Occupation	.232**	.000	.212**	.000
Religion	.250**	.000	.250**	.000
Socio economic status	-.346**	.000	-.240**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.44 shows relationship between demographic characteristics and use of absorbent material during menstruation among women. Before IEC use of absorbent material was found to be positive and significantly correlated with education (r_s = .446 < 0.01) occupation (r_s = .232, p < 0.01) and religion (r_s = .250, p < 0.01) while negative and

significantly correlated with age (r_s = -.249, p < 0.01) and socio economic status (r_s = -.346, p < 0.01) of women. Further, post IEC awareness use of absorbent material was found to positive and significantly correlated with education (r_s = .220 < 0.01), occupation (r_s = .212, p < 0.01) and religion (r_s = .250, p < 0.01) while negative and significantly correlated with socio economic status (r_s = -.240, p < 0.01) and age of women (r_s = -.139, p < 0.01).

Table 4.45 : Correlation coefficient between change of absorbents during menstruation and demographic characteristics (n=396)

Demographic characteristics	*Change of absorbents*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.073	.145	.136**	.007
Education	.175**	.000	-.120*	.017
Occupation	-.055	.278	.088	.080
Religion	-.031	.535	-.024	.635
Socio economic status	-.151**	.003	.064	.201

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.45 shows relationship between demographic characteristics and change of absorbent material during menstruation among women. Pre IEC change of absorbents was found to be positive and significantly correlated with education (r_s = .175, p < 0.01). Insignificant correlation was found between pre IEC change of absorbent and occupation (r_s = -.055, p > 0.05), age (r_s = -.073, p > 0.05) and religion (r_s = - .031, p > 0.05). Significant but negative relationship was found between socio economic status of women and pre IEC change of absorbent material during menstruation (r_s = -.151, p < 0.01). Post IEC change of absorbents was found to positive and significantly correlated with age (r_s =

.136, $p < 0.01$) and negative but significantly correlated with education ($r_s = .120$, $p < 0.05$). Post IEC change of absorbent material during menstruation was insignificant with occupation ($r_s = .088$, $p > 0.05$), religion ($r_s = -.024$, $p > 0.05$), socio economic status of women ($r_s = .064$, $p > 0.05$).

Correlation between demographic characteristics and restrictions during menstruation among rural women has been given in table 4.46. Restrictions during menstruation was found to be significantly correlated with age ($r_s = .162$, $p < 0.01$), education ($r_s = .012$, $p < 0.05$), religion ($r_s = .0148$, $p < 0.01$). Insignificant correlation was found between pre IEC restrictions and occupation ($r_s = -.055$, $p > 0.05$) and socio economic status of women ($r_s = -.011$, $p > 0.05$). While, post IEC restrictions during menstruation was found to positive and significantly correlated with age ($r_s = .180$, $p < 0.01$) and religion ($r_s = .108$, $p < 0.05$), further negative but significantly correlated with occupation ($r_s = -.119$, $p < 0.05$). While, post IEC restrictions during menstruation was insignificant with education ($r_s = -.084$, $p > 0.05$) and socio economic status ($r_s = .030$, $p > 0.05$) of women.

Table 4.46 : Correlation coefficient between restrictions during menstruation and demographic characteristics (n=396)

Demographic Characteristics	*Restrictions during menstruation*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.162**	.001	.180**	.000
Education	.102*	.043	-.084	.095
Occupation	.012	.816	-.119*	.081
Religion	.148**	.003	.108*	.032
Socio Economic Status	-.011	.826	.030	.549

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Correlation between demographic characteristics and awareness regarding age of marriage among women has been given in table 4.47 and indicates a positive and significant correlation between pre IEC awareness regarding age of marriage and age (r_s = .126, $p < 0.05$), occupation (r_s = .130, $p < 0.01$) and socio economic status of women (r_s =.140, $p < 0.01$) while significant but negative correlation was found with education (r_s = -.184, $p < 0.01$). Pre IEC awareness regarding age of marriage was insignificant with religion (r_s = -.001, $p > 0.05$). Post IEC awareness regarding right age of marriage was positive and significantly correlated with religion (r_s = .239, $p < 0.01$) and insignificant with age (r_s = .085, $p > 0.05$), education (r_s = .073, $p > 0.05$), occupation (r_s = -.023, $p > 0.05$) and socio economic status of women (r_s = -.029, $p > 0.05$).

Table 4.47 : Correlation coefficient between awareness regarding right age of marriage and demographic characteristics (n=396)

Demographic Characteristics	*Awareness on age of marriage*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.126*	.012	.085	.090
Education	-.184**	.000	.073	.145
Occupation	.130**	.009	-.023	.649
Religion	-.001	.978	.239**	.000
Socio economic status	.140**	.005	-.029	.562

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Correlation between demographic characteristics and opinion on early marriage among women has been given in table 4.48 and reveals an insignificant relationship between pre IEC opinion on early marriage among women and age (r_s = .071, $p > 0.05$), occupation (r_s = .027, $p > 0.05$) and religion (r_s = - .053, $p > 0.05$) . Significant but negative correlation

was found between pre IEC opinion on early marriage among women and education (r_s = -.325, $p < 0.01$) while positive and significantly correlated was found with socio economic status of women (r_s = .140, $p < 0.01$). Post IEC opinion on early marriage was significantly correlated with age (r_s =.204, $p < 0.01$) and insignificant with education (r_s = .081, $p > 0.05$), occupation (r_s = .019, $p > 0.05$), religion (r_s = - .070, $p > 0.05$) and socio economic status of women (r_s = .086, $p > 0.05$).

Table 4.48 : Correlation coefficient between opinion on early marriage among women and demographic characteristics (n=396)

Demographic characteristics	*Opinion on early marriage*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.071	.157	.204**	.000
Education	-.325**	.000	-.081	.110
Occupation	.027	.586	.019	.704
Religion	-.053	.292	-.070	.165
Socio economic status	.196**	.000	.086	.086

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.49 shows relationship between awareness regarding effect of early marriage among women and demographic characteristics and indicates an insignificant relationship between pre IEC awareness regarding effect of early marriage among women and age (r_s = .065, $p > 0.05$), occupation (r_s = -.032, $p > 0.05$). Significant but negative relationship was found between pre IEC awareness regarding effect of early marriage among women and education (r_s = -.344, $p < 0.01$) and religion (r_s = - .188, $p < 0.01$) while positively significant was found with socio economic status of women (r_s =.232, $p < 0.01$). Post IEC awareness regarding effect of early marriage on health was positive and significantly

correlated with education (r_s = .241, p < 0.01), occupation (r_s = .200, p < 0.01) and religion of rural women (r_s = .141, p < .0.01) while negatively significant with socio economic status (r_s = - .179, p < 0.01). Insignificant relationship was found between post IEC awareness regarding effect of early marriage among women and age (r_s = -.062, p > 0.05).

Table 4.49 : Correlation coefficient between awareness regarding effect of early marriage on health and demographic characteristics (n=396)

Demographic characteristics	*Awareness on effect of early marriage*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.065	199	-.062	.221
Education	-.344**	.000	.241**	.000
Occupation	-.032	.529	.200**	.000
Religion	-.188**	.000	.141**	.000
Socio Economic Status	.232**	.000	-.179**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.50 shows relationship between awareness regarding number of children among women and demographic characteristics and reveal a positive and significant correlation between pre IEC awareness regarding number of children among women and their age (r_s = .139, p < 0.01) and socio economic status (r_s =.461, p < 0.01). Significant but negative correlation was found between pre IEC awareness regarding number of children among women and education (r_s = -.461, p < 0.01), occupation (r_s = -.102, p < 0.05) while insignificant was found with religion (r = - .085, p > 0.05). Further, post IEC awareness regarding number of children was positively significant with age (r_s = .219, p < 0.01) and socio economic status of women (r_s =.212, p < 0.01). Significant but negative relationship

was found between post IEC awareness regarding number of children and education (r_s = -.273, $p < 0.01$), occupation of women (r_s = -.245, $p < 0.01$). Post awareness regarding number of children among women was found to be insignificant with religion (r_s = - .085, $p > 0.05$).

Table 4.50 : Correlation coefficient between awareness regarding number of children among women and demographic characteristics (n=396)

Demographic characteristics	*Number of children in family*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.139**	.006	.219**	.000
Education	-.461**	.000	-.273**	.000
Occupation	-.102*	.043	-.245**	.000
Religion	-.085	.092	.052	.300
Socio economic status	.461**	.000	.212**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.51 shows relationship between gender preference of children among women and demographic characteristics. Pre IEC gender preference of children among rural women was found to be insignificant with age (r_s = -.052, $p > 0.05$) and socio economic status of women (r_s = -.081, $p > 0.05$) while positive and significant relationship was found with education (r_s = .323, $p < 0.01$), occupation (r_s = .206, $p < 0.01$) and religion of women (r_s = .099, $p < 0.05$). Except it, Post IEC gender preference was positive and significantly correlated with education (r_s = .563, $p < 0.01$) and occupation of rural women (r_s = .214, $p < 0.01$) whereas significant and negatively correlated with age (r_s = - .167, $p < 0.01$) and socio economic status of women (r_s = - .458, $p < 0.01$). There is insignificant relationship

between post IEC awareness regarding gender preference of children and religion of women (r_s = -.083, p > 0.05).

Table 4.51 : Correlation coefficient between gender preference of child among women and demographic characteristics (n=396)

Demographic characteristics	*Gender preferences of child*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.052	.299	-.167**	.001
Education	.323**	.000	.563**	.000
Occupation	.206**	.000	.214**	.000
Religion	.099*	.048	.083	.097
Socio economic status	-.081	.108	-.458**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Correlation between awareness regarding age of first pregnancy among women and demographic characteristics has been given in table 4.52. Evidences from survey reveal that pre IEC awareness regarding age of first pregnancy was positively significant with socio economic status (r_s = .253, p < 0.01) and negatively significant with education (r_s = -.335, p < 0.01). Pre IEC awareness regarding age of first pregnancy was insignificant with age (r_s = .010, p > 0.05), occupation (r_s = -.053, p > 0.05) and religion of women (r_s = .086, p > 0.05). Post IEC awareness regarding age of first pregnancy was positively significant with religion (r_s = .179, p < 0.01) and socio economic status of women (r_s = .139, p < 0.05). Post IEC awareness regarding age of first pregnancy was insignificant with age (r = -.008, p > 0.05), education (r_s = .001, p > 0.05) and occupation (r_s = -.008, p > 0.05) of rural women.

Table 4.52 : Correlation coefficient between awareness regarding age of first pregnancy among women and demographic characteristics (n=396)

Demographic characteristics	*Age of first pregnancy*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.010	.835	-.008	.871
Education	-.335**	.000	.011	.830
Occupation	-.053	.291	-.008	.875
Religion	.086	.089	.179**	.000
Socio economic status	.253**	.000	.139*	.040

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.53 : Correlation coefficient between women's awareness regarding birth interval between children and demographic characteristics (n=396)

Demographic characteristics	*Birth interval*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.153**	.002	-.080	.112
Education	-.510**	.000	.083	.098
Occupation	-.260**	.000	.143**	.004
Religion	-.131**	.009	-.081	.107
Socio Economic Status	.310**	.000	-.153**	.002

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.53 shows relationship between demographic characteristics and women's awareness regarding birth interval. Pre IEC awareness regarding birth interval among women was found to be positive and significantly correlated with age ($r_s = .153$, $p < 0.01$) and socio economic status of women ($r_s = .310$, $p < 0.01$), while significant but negative relationship was found with education ($r_s = -.510$, $p < 0.01$), occupation ($r_s = -.260$, $p < 0.01$) and religion ($r_s = -.131$, $p < 0.01$). Post IEC awareness regarding birth interval was

found to be positively significant with occupation (r_s = .143, p < 0.01) and negatively significant with socio economic status of women (r_s = - .153 p < 0.01). Further, Post IEC awareness regarding birth interval was found to be insignificant with age (r_s = -.080, p > 0.05), education (r_s = .083, p > .0.05) and religion (r_s = - .081, p > 0.05).

Table 4.54 shows correlation between awareness regarding consequences of closed birth interval among women and demographic characteristics. Pre IEC awareness regarding consequences of closed birth interval among women was positive and significantly correlated with socio economic status (r_s = .110, p < 0.05) and religion (r_s = .231, p < 0.01) while significant but negative with education (r_s = -.262, p < 0.01) and insignificant with age (r_s = .024, p > 0.05) and occupation (r_s = -.094, p > 0.05). Post IEC awareness regarding consequences of closed birth interval was found to be positively significant with age (r_s = .237, p < 0.01) and significant but negative relationship with education (r_s = --.172, p < 0.01) while insignificant with occupation (r_s = -.044, p > 0.05), religion (r_s = -.013, p > 0.05) and socio economic status (r_s = .212, p > 0.05).

Table 4.54 : Correlation coefficient between women's awareness regarding consequences of closed birth interval and demographic characteristics (n=396)

Demographic characteristics	*Consequences of closed birth interval*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.024	.634	.237**	.000
Education	-.262**	.000	-.172**	.001
Occupation	-.094	.061	-.044	.383
Religion	.231**	.000	-.013	.789
Socio economic status	.110*	.029	.212	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.55 shows relationship between demographic characteristics and awareness regarding antenatal care among women. Pre IEC awareness regarding antenatal care among women was positive and significantly correlated with age (r_s = .162, p < 0.01) and socio economic status (r_s = .309, p < 0.01) of women, while significant but negative relationship was found with education (r_s = -.296, p < 0.01) and insignificant with occupation (r_s = -.050, p > 0.05) and religion (r_s = -.016, p > 0.05). Post IEC awareness regarding antenatal care was found to be positively significant with socio economic status (r_s = .274, p < 0.01) while negatively significant with education (r_s = -.364, p < 0.01), occupation (r_s = -.114, p < 0.05) and insignificant with age (r_s = .087, p > 0.05), religion of women (r_s = -.016, p > 0.05).

Table 4.55 : Correlation coefficient between women's awareness regarding antenatal care among women and demographic characteristics (n=396)

Demographic characteristics	*Antenatal care*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	.162**	.001	.087	.085
Education	-.296**	.000	-.364**	.000
Occupation	-.050	.321	-.114*	.023
Religion	-.016	.746	-.016	.746
Socio economic status	.309**	.000	.274**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Correlation between awareness regarding place of delivery among women and demographic characteristics has been given in table 4.56. Pre IEC awareness regarding place of delivery found to be positively significant with education (r_s = .325, p < 0.01) and occupation (r_s = .119, p < 0.05) while significant but negative with age (r_s = -.116, p <

0.05) and socio economic status (r_s = -.181, p < 0.01) and insignificant with religion of women (r = .031, p > 0.05). On the other hand post IEC awareness regarding place of delivery was positive and significantly correlated with education (r = .114, p < 0.05) and religion (r_s = .121, p < 0.05), insignificant with age, (r_s = .079, p > 0.05), occupation (r_s = .010, p > 0.05) and socio economic status of women (r_s = -.095, p > 0.05).

Table 4.56 : Correlation coefficient between women's awareness regarding place of delivery and demographic characteristics (n=396)

Demographic characteristics	*Place of delivery*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.116*	.021	.079	.116
Education	.325**	.000	.114*	.024
Occupation	.119*	.018	.010	.847
Religion	-.031	.534	.121*	.016
Socio economic status	-.181**	.000	-.095	.058

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.57 shows correlations between awareness regarding contraception among women and demographic characteristics. There was positive and significant correlation between awareness regarding contraception among women and socio economic status of women (r_s = .120, p < 0.05), while, significant but negative correlation was found with age (r_s = -.274, p < 0.01) and insignificant with education (r_s = -.018, p > 0.05), occupation (r_s = .096, p > 0.05) and religion (r_s = .071, p > 0.05). Post IEC awareness regarding contraception was found to be positively significant with socio economic status (r_s = .148, p < 0.01) and insignificant with age (r_s = -.040, p > 0.05), education (r_s = .001, p > 0.05), occupation (r_s = -.061, p > 0.05) and religion (r_s = -.34, p > 0.05).

Table 4.57 : Correlation coefficient between awareness regarding contraception among women and demographic characteristics (n=396)

Demographic characteristics	*Awareness of contraception*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.274**	.000	-.040	.424
Education	-.018	.714	.001	.977
Occupation	.096	.056	-.061	.224
Religion	.071	.161	-.034	.499
Socio economic status	.120*	.017	.148**	.003

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.58 : Correlation coefficient between use of contraceptives among women and demographic characteristics (n=396)

Demographic characteristics	*Use of contraceptives*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.266**	.000	-.369**	.000
Education	-.056	.262	.184**	.000
Occupation	.149**	.003	.289**	.000
Religion	.067	.183	.140**	.005
Socio economic status	.054	.288	-.200**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Correlation between use of contraceptives among women and demographic characteristics has been given in above table 4.58. Pre IEC use of contraceptives was positive and significantly correlated with occupation (r_s = .149, $p < 0.01$) while significant but negative correlated with their age (r_s = -.266, $p < 0.01$) and insignificant with education (r_s = -.056, $p > 0.05$), religion (r_s = .067, $p > 0.05$) and socio economic status of women (r_s = .054, $p > 0.05$). Post IEC use of contraceptives was found to

positive and significantly correlated with education (r_s = .184, p < 0.01), occupation (r_s = .289, p < 0.01) and religion (r_s = .140, p < 0.01) whereas significant but negatively correlated with age (r_s = -.369, p < 0.01) and socio economic status of women (r_s = -.200, p < 0.01).

Table 4.59 shows relationship between decision making regarding contraception among women and demographic characteristics. It was found that pre IEC decision making regarding contraception among women was insignificantly correlated with age (r_s = -.086, p > 0.05), education (r_s = .057, p > 0.05), occupation (r_s = .065, p > 0.05), religion (r_s = .031, p > 0.05) and socio economic status of women (r_s = -.009, p > 0.05). While, Post IEC decision making regarding contraception among women was positive and significantly correlated with occupation (r_s = .104, p < 0.05), negative and significantly correlated with socio economic status (r_s = -.278, p < 0.01) and insignificantly correlated with age (r_s = -.015, p > 0.05), education (r_s = .017, p > 0.05) and religion of women (r_s = .058, p > 0.05).

Table 4.59 : Correlation coefficient between decision making regarding contraception among women and demographic characteristics (n=396)

Demographic characteristics	*Decision regarding contraception*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.086	.086	-.015	.760
Education	.057	.258	.017	.736
Occupation	.065	.200	.104*	.039
Religion	.031	.545	.058	.253
Socio economic status	-.009	.857	-.278**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.60 shows correlation between problem sharing regarding contraception among women and demographic characteristics. Pre IEC problem sharing regarding contraception among women was found to be positively significant with occupation (r_s = .121, $p < 0.05$) and socio economic status (r_s = .106, $p < 0.05$), significant but negative with age (r_s = -.242, $p < 0.01$) and education (r_s = -.114, $p < 0.05$), insignificant with religion of women (r_s = .064, $p > 0.05$). Post IEC problem sharing regarding contraception among women was found to be positive and significant with education (r_s = .261, $p < 0.01$) and religion (r_s = .115, $p < 0.05$) while negative and significant with age (r_s = -.313, $p < 0.01$) and socio economic status (r_s = -.115, $p < 0.05$) and insignificant with education (r_s = .017, $p > 0.05$).

Table 4.60 : Correlation coefficient between problem sharing regarding contraception among women and demographic characteristics (n=396)

Demographic characteristics	*Women shared the problem with husband*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.242**	.000	-.313**	.000
Education	-.114*	.024	.017	.070
Occupation	.121*	.016	.261**	.000
Religion	.064	.205	.115*	.022
Socio economic status	.106*	.035	-.115*	.023

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Correlation between women's opinion on abortion and demographic characteristics has been given in table 4.61. Significant but negative relationship was found between pre IEC opinion on abortion and age (r_s = -.128, $p < 0.05$) and education (r_s = -.178, $p < 0.01$). Pre IEC women's opinion on abortion was found to be insignificant with occupation (r_s =

.007, p > 0.05), religion (r_s = .077, p > 0.05) and socio economic status of women (r_s = .060, p > 0.05). Post IEC opinion on abortion was positive and significantly associated with religion (r_s = .119, p < 0.05) but negative and significantly associated with education (r_s = -.100, p < 0.05) and insignificant with age (r_s = .008, p > 0.05), occupation (r_s = .000, p > 0.05) and socio economic status (r_s = .056, p > 0.05).

Table 4.61 : Correlation coefficient between women's opinion on abortion and demographic characteristics (n=396)

Demographic characteristics	*Opinion on abortion*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.128*	.011	.008	.869
Education	-.178**	.000	-.100*	.047
Occupation	.007	.884	.000	.997
Religion	.077	.126	.119*	.018
Socio economic status	.060	.235	.056	.263

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.62 shows correlation between awareness regarding consequences of abortions among women and demographic characteristics. Pre IEC awareness regarding consequences of abortions among women was positive and significantly associated with socio economic status (r_s = .173, p < 0.01) but negative and significantly associated with education (r_s = - .192, p < 0.01) and insignificant with age (r_s = -.007, p > 0.05), occupation (r_s = .070, p > 0.05) and religion (r_s = -.044, p > 0.05). Post IEC awareness regarding consequences of abortions among women was found to be insignificant with age (r_s = -.013, p > 0.05), education (r_s = -.063, p > 0.05), occupation (r_s = -.058, p >

0.05), religion (r_s = -.037, p > 0.05) and socio economic status of rural women (r_s = .040, p > 0.05).

Table 4.62 : Correlation coefficient between awareness regarding consequences of abortions among women and demographic characteristics (n=396)

Demographic characteristics	*Consequences of abortions*			
	Pre IEC		*Post IEC*	
	r_s	*p*	r_s	*p*
Age	-.007	.893	-.013	.794
Education	-.192**	.000	-.063	.213
Occupation	.070	.165	-.058	.247
Religion	-.044	.382	.037	.469
Socio economic status	.173**	.001	.040	.431

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

In the present study, tables 4.42 – 4.62 show the association of pre IEC awareness regarding gender health inequity with demographic variables. **The second null hypothesis** *i. e. there is no association between pre IEC awareness regarding gender health inequity among women and demographic characteristics,* was partially rejected at 0.05 level of significance for the association of –

- **Pre IEC awareness** regarding menstruation, use of absorbent material during menstruation, restrictions during menstruation, awareness regarding right age of marriage, number of children in family, gender preference of child, birth interval, awareness regarding antenatal care, place of delivery, awareness of contraception, use of contraceptives, women shared the problem with husband, opinion on abortion **with age**.

- **Pre IEC awareness** regarding menstruation, use of absorbent material, change of absorbents, restrictions during menstruation, awareness regarding right age of marriage, opinion on early marriage, effect of early marriage, number of children, age of pregnancy, birth interval, consequences of closed birth interval, awareness regarding antenatal care, place of delivery, women shared the problem with husband, opinion on abortion, consequences of abortions **with education.**

- **Pre IEC awareness** regarding menstruation, use of absorbent material during menstruation, awareness regarding right age of marriage, number of children in family, gender preference of child, birth interval, place of delivery, use of contraception, women shared the problem with husband **with occupation.**

- **Pre IEC awareness** regarding menstruation, bathing during menstruation, use of absorbent material during menstruation, restrictions during menstruation, effect of early marriage, gender preference of child, birth interval, consequences closed birth interval **with religion.**

- **Pre IEC awareness** regarding menstruation, bathing during menstruation, use of absorbent material during menstruation, change of absorbents during menstruation, awareness regarding right age of marriage, opinion on early marriage, effect of early marriage, number of children in family, age of pregnancy, birth interval, consequences of closed birth interval, awareness regarding antenatal care, place of delivery, awareness contraception, women shared the problem, consequences of abortions with husband **with socio economic status of women.**

In the present study, tables 4.42 – 4.62 also show the association of post IEC awareness regarding gender health inequity with demographic characteristics. **The third null hypothesis** *i.e. there is no association between post IEC awareness regarding gender health inequity among women and demographic characteristics,* was partially rejected at 0.05 level of significance for the association of –

- **Post IEC** use of absorbent material, change of absorbents, restrictions during menstruation, opinion on early marriage, number of children in family, gender preferences of child, consequences of closed birth interval, use of contraception, women shared the problem with husband **with age**.

- **Post IEC** bathing during menstruation, use of absorbent material, change of absorbents, awareness on effect of early marriage, number of children in family, gender preferences of child, consequences of closed birth interval, antenatal care, place of delivery, use of contraception, women shared the problem with husband, opinion on abortion **with education**

- **Post IEC** use of absorbent material, restrictions during menstruation, awareness on effect of early marriage, number of children in family, gender preferences of child, birth interval, antenatal care, use of contraception, decision regarding contraception, women shared the problem **with occupation.**

- **Post IEC** bathing during menstruation, use of absorbent material, restrictions during menstruation, awareness on age of marriage, awareness on effect of early marriage, age of pregnancy, place of delivery, use of contraception, women shared the problem with husband, opinion on abortion **with religion.**

- **Post IEC** awareness regarding use of absorbent material, awareness on effect of early marriage, number of children, gender preferences of child, age of pregnancy, birth interval, antenatal care, awareness of contraception, use of contraception, decision regarding contraception, women shared the problem **with socio economic status.**

4.4 Health status of rural women and its association with gender health inequity practices

Present study established relationship between practices of gender health inequity and health of rural women. For this, pre IEC practices of gender health inequity and health of rural women was taken into consideration. Firstly, health status of rural women was assessed then bivariate analysis was done in the following sections –

4.4.1 Health status of women

4.4.2 Association between gender health inequity practices and women's health status

4.4.1 Health status of women

For assessment of health status of rural women, body mass index, anaemia, common illnesses, menstrual problems and reproductive tract infection were considered.

Frequency and percentages of women according to their body mass index has been given in table 4.63. It was found that 25 % of rural women possessed low BMI (< 18.50 kg/m^2), 67.2% of women possessed normal BMI (18.5 – 24.99 kg/m^2) and 7.8% of rural women possessed BMI above ≥ 25 kg/m^2.

As far as anaemia was concerned, 7.8% of women had severe anaemia (<7.0 g/dl), 56.3% had moderate anaemia (7.0-9.9 g/dl), 23.5% had mild anaemia (10.0-11.9 g/dl) remaining 12.4% of rural women were not having anaemia (table 4.63).

Table 4.63 : Frequency distribution and percentages of women according to their body mass index and anaemia

Health variables	*Frequency*	*Percentage*
BMI (kg. /m^2)		
<18.50	99	25.0
18.5-24.99	266	67.2
≥25	31	7.8
Total	396	100
Anaemia		
Mild	93	23.5
Moderate	223	56.3
Severe	31	7.8
No	49	12.4
Total	396	100

Women's common illnesses have been given in table 4.64. It was observed that majority of women were suffering from pain in joints and backache followed by constipation (8.6%), diarrhoea (6.8%), fever (4.3%), tuberculosis (2.5%), remaining 47% of women had no common illnesses.

Coming to the menstrual problem among rural women, majority of them had no menstrual problem (55.3%), followed by Oligomenorrhoea (21.2%), menorrhagia (11.1%), delayed cycle (8.3%), polymenorrhoea (2.0%) and genital infection (2.0%) (table 4.64).

Table 4.64 : Frequency distribution and percentages of women according to their common Illnesses and menstrual problems

Illnesses	*Frequency*	*Percentage*
Women's Common Illness		
Diarrhoea	27	6.8
Constipation	34	8.6
Tuberculosis	10	2.5
Fever	17	4.3
Cough /Cold	15	3.8
Pain Joints / back	107	27.0
Nothing	186	47.0
Total	396	100
Women's menstrual problems		
Genital Infection	8	2.0
Menorrhagia	44	11.1
Polymenorrhea	8	2.0
Oligomenorrhoea	84	21.2
Delayed Cycles	33	8.3
Nothing	219	55.3
Total	396	100

Table 4.65 : Frequency distribution and percentages of women according to reproductive tract infection

RTI	*Frequency*	*Percentage*
Upper RTI	2	0.5
Lower RTI	173	43.7
No	221	55.8
Total	396	100

Prevalence of reproductive tract infection was observed among rural women and found that 55.8% of rural women were not suffering from reproductive tract infection; while

43.7% were suffering from lower reproductive tract infection and only 0.5% of women were suffering from upper reproductive tract infection (Table 4.65).

4.4.2 Association between gender health inequity practices and women's health status

Correlation between body mass index and menstrual practices has been given in table 4.66. Body mass index was found to be positive and significantly correlated with bathing during menstruation (r_s = .163, p < 0.01) and use of absorbents (r_s = .168, p < 0.01), while, insignificant with change of absorbents during menstruation (r_s = .021, p > 0.05), restriction during menstruation (r_s = .060, p > 0.05). Table 4.66 also shows association between anaemia and menstruation among women. Anaemia was found to be insignificant with bathing during menstruation (r_s = .051, p > 0.05), use of absorbent material (r_s = .038, p > 0.05), restriction during menstruation (r_s = .036, p > 0.05), while, positively significant with change of absorbents during menstruation (r_s = .114, p < 0.05).

Table 4.66 : Correlation coefficient between body mass index, anaemia and menstrual practices among women (n=396)

Menstrual practices	*Body Mass Index*		*Anaemia*	
	r_s	*p*	r_s	*p*
Bathing during menstruation	.163**	.001	.051	.308
Absorbents during menstruation	.168**	.001	.038	.455
Change of absorbents	.021	.672	.114*	.023
Restriction During menstruation	.060	.235	.036	.476

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.67 shows relationship between common illnesses and menstruation among women. Common illnesses among women were positively significant with change of

absorbents (r_s = .120, p < 0.05), while, insignificant with bathing during menstruation (r_s = .179, p > 0.05), use of absorbent material (r_s = .016, p > 0.05), restriction during menstruation (r_s = .097, p > 0.05). Table also shows relationship between menstrual problems and menstruation among women. Menstrual problems bore insignificant association with bathing during menstruation (r_s = .046, p > 0.05), use of absorbent material, (r_s = -.041, p > 0.05), change of absorbents during menstruation (r_s = .093, p > 0.05) and significant and positive relationship with restriction among women (r_s = .130, p < 0.01).

Table 4.67 : Correlation coefficient between common illnesses, menstrual problems and menstrual practices among women (n=396)

Menstrual practices	*Common illnesses*		*Menstrual problems*	
	r_s	*p*	r_s	*p*
Bathing during menstruation	.179	.000	.046	.357
Absorbents during menstruation	.016	.750	-.041	.415
Change of absorbents	.120*	.017	.093	.065
Restriction during menstruation	.097	.053	.130**	.010

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Table 4.68 : Correlation coefficient between reproductive tract infection and menstrual practices among women (n=396)

Menstrual practices	*RTI*	
	r_s	*p*
Bathing during menstruation	-.115*	.022
Use of absorbents material	.168**	.001
Change of absorbents	-.061*	.224
Restrictions	.083	.097

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.68 shows relationship between reproductive tract infection and menstruation among women. RTI bore significant but negative correlation with bathing during menstruation (r_s = -.115, p < 0.05), while positive and significant correlation with use of absorbent material (r_s = .168, p < 0.01) and insignificant with change of absorbents during menstruation (r_s = -.061, p > 0.05), restriction during menstruation (r_s = .083, p > 0.05).

Table 4.69 shows relationship between body mass index and practices regarding marriage and reproduction among women. Body mass index bore positive and significant correlation with women's age of marriage (r_s = .178, p < 0.01), age of pregnancy (r_s = .197, p < 0.01), number of pregnancies (r_s = .171, p < 0.01), while negative and significantly associated with birth interval (r_s = -.185, p < 0.01), received antenatal care (r_s = -.290, p < 0.01) and place of delivery (r_s = -.145, p < 0.01) and insignificant with number of children (r_s = - .053, p > 0.05).

Table 4.69 : Correlation coefficient between body mass index, anaemia and practices regarding marriage and reproduction among women (n=396)

Practices regarding marriage and reproduction	*Body Mass Index*		*Anaemia*	
	r_s	*p*	r_s	*p*
Marriage				
Women's age of marriage	.178**	.000	-.139**	.005
Reproduction				
Number of children	.053	.289	.235**	.000
Age of pregnancy	.197**	.000	.134**	.008
Number of pregnancies	.171**	.001	-.211**	.000
Birth interval	-.185**	.000	.235**	.000
Received antenatal care	-.290**	.000	-.230**	.000
Place of delivery	-.145**	.004	.196**	.000

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.69 also shows correlation between anaemia and practices regarding marriage, reproduction among women. Anaemia was found to be negative and significant with women's age of marriage (r_s = - .139, $p < 0.01$), while positive and significant with number of children among women (r_s = .235, $p < 0.01$), age of pregnancy (r_s = .134, $p < 0.01$), birth interval (r_s = .235, $p < 0.01$), place of delivery (r_s = .196, $p < 0.01$), number of pregnancy (r_s = -.211, $p < 0.01$), receives antenatal care (r_s = - .230, $p < 0.01$).

Table 4.70 shows association between common illnesses and practices regarding marriage and reproduction. Common illnesses were found to be insignificant women's age of marriage (r_s = .030, $p > 0.05$), age of pregnancy (r_s = .017, $p > 0.05$), while, significant but negative association with number of children (r_s = -.215, $p < 0.01$), number of pregnancies (r_s = -.184, $p < 0.01$), received antenatal care (r_s = -.133, $p < 0.01$) and positively significant with birth interval (r_s = 165, $p < 0.01$), place of delivery (r_s = .203, $p < 0.01$).

Table 4.70 : Correlation coefficient between women's common illnesses, menstrual problems and practices regarding marriage and reproduction (n=396)

Practices regarding marriage and reproduction	*Common Illnesses*		*Menstrual problems*	
	r_s	*p*	r_s	*p*
Marriage				
Women's age of marriage	.030	.551	.086	.087
Reproduction				
Number of children	-.215**	.000	-.245**	.000
Age of pregnancy	.017	.741	.076	.132
Number of pregnancies	-.184**	.000	-.220**	.000
Birth interval	.165**	.001	.245**	.000
Received antenatal care	-.133**	.008	-.077	.127
Place of delivery	.203**	.000	.129*	.010

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.70 also shows relationship between menstrual problems and practices regarding marriage and reproduction. Menstrual problems were found to be insignificant with women's age of marriage (r_s = - .086; p > 0.05), age of pregnancy (r_s = .076, p > 0.05), received antenatal care (r_s = - .077, p > 0.05), while, significant but negative with number of children (r_s = -.245, p < 0.01), number of pregnancies (r_s = -.220, p < 0.01) and positively significant with place of delivery (r_s = .120, p < 0.05) and birth interval, (r_s = .245, p < 0.01).

Table 4.71 : Correlation coefficient between reproductive tract infection and practices regarding marriage and reproduction among women (n=396)

Practices regarding marriage and reproduction	*Reproductive tract Infection*	
	r_s	*p*
Marriage		
Women's age of marriage	.206**	.000
Reproduction		
Number of children	.-179**	.000
Age of pregnancy	.225**	.000
Number of pregnancies	-.158**	.000
Birth interval	.055	.278
Received antenatal care	-.132**	.008
Place of delivery	.064	.204

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.71 shows association between reproductive tract infection and practices regarding marriage and reproduction. RTI was found to be positively significant with women's age of marriage (r_s = - .206, p < 0.01), women's age of first pregnancy (r_s = .225, p < 0.01), while, a significant but negative relationship with number of children (r_s = -.179, p < 0.01), number of pregnancies (r_s = -.158, p < 0.01), received antenatal care (r_s

= -. 132, p < 0.01) and insignificant with birth interval (r_s = .055, p > 0.05), place of delivery (r_s = .064, p > 0.05).

Table 4.72 : Correlation coefficient between body mass index, anaemia and practices of contraception, abortions among women (n=396)

Practices of contraception, abortions	*Body Mass Index*		*Anaemia*	
	r_s	*p*	r_s	*p*
Contraception				
Use of contraceptives	-.130**	.009	-.276**	.000
Women shared problem	-.176**	.000	-.290**	.000
Abortion				
Practice of abortion	-.139**	.006	.069	.170
Number of abortion	.132**	.009	-.062	.218
Place of abortion	-.124*	.014	.054	.280

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Association between body mass index and practice regarding contraception and abortion has been given in above table 4.72. Body mass index was found to be negative and significantly associated with use of contraception (r_s = -.130, p < 0.01), sharing problem regarding contraception (r_s = -.176, p < 0.01), practice of abortions (r_s = -. 139, p < 0.01), place of abortion (r_s = -.124, p < 0.05) while positive and significant with number of abortions (r_s = .132, p < 0.01). Table also indicates association between anaemia and practice regarding contraception and abortion. Anaemia was found to be negative and significantly associated with use of contraception (r_s = - .276, p < 0.01), sharing problem regarding contraception (r_s = -.290 < 0.01) while insignificant with practice of abortion (r_s = .069, > 0.05), with number of abortions (r_s = -.062, p > 0.05), place of abortion (r_s = .054, p > 0.05).

Table 4.73 : Correlation coefficient between common illnesses, menstrual problems and practices of contraception, abortions among women (n=396)

Practices of contraception, abortions	*Common illnesses*		*Menstrual problems*	
	r_s	*p*	r_s	*p*
Contraception				
Use of contraceptives	.065	.197	-.005	.916
Women shared problem	.043	.397	-.021	.681
Abortion				
Practice of abortion	.060	.230	.159**	.002
Number of abortion	-.056	.263	-.133	.008
Place of abortion	.058	.248	.149	.003

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

Above table 4.73 shows correlation between common illnesses and menstrual problems and contraception, abortions among women. Common illnesses were found to be insignificant with use of contraceptives (r_s = .065, p > 0.05), sharing problem (r_s = .043, p > 0.05), practice of abortions (r_s = .060, p > 0.05), number of abortions (r_s = -.056, p > 0.05), place of abortion (r_s = .058, p > 0.05). Further, menstrual problems were found to be insignificant with use of contraception (r_s = - .005, p > 0.05), sharing problem (r = -.021 > 0.05), number of abortions (r_s = -.133, p > 0.05), place of abortion (r_s = .058, p > 0.05) and (r_s = .149, p > 0.05), positively significant with practice of abortions (r_s = .159, < 0.01).

Correlation between reproductive tract infection and contraception, abortions among women has been given in table 4.74. Reproductive tract infection was found to be insignificantly associated with use of contraception (r_s = .005, p > 0.05), sharing problem regarding contraception (r_s = .045, p > 0.05). RTI was negative and significantly associated with practice of abortions (r_s = -.115, p < 0.05), place of abortion (r_s = -.107, p

< 0.05), while, positive and significant with number of abortions (r_s = .112, p < 0.05) among women.

Table 4.74 : Correlation coefficient between reproductive tract infection and practices of contraception, abortions among women (n=396)

Practices of contraception, abortions	*Reproductive tract infection*	
	r_s	*p*
Contraception		
Use of contraceptives	.045	.368
Women shared problem	.005	.928
Abortion		
Practice of abortion	-.115*	.022
Number of abortion	.112*	.025
Place of abortion	-.107*	.034

**Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level, (2-tailed)

In the present study, Tables 4.66 – 4.74 shows the association between gender health inequity practices and health status of rural women. **The fourth null hypothesis** *i.e. there is no association between practices of gender health inequity and health of women,* was partially rejected at 0.05 level of significance, for the association of –

- **Gender health inequity practices** related to bathing at time of menstruation, use of absorbents during menstruation, women's age of marriage, age of pregnancy, number of pregnancies, birth interval, received antenatal care, place of delivery, use of contraceptives, women shared problem, practice of abortion, number of abortion, place of abortion and **BMI.**

- **Gender health inequity practices** related to change of absorbents, number of children age of pregnancy, number of pregnancies, birth interval, received

antenatal care, place of delivery, use of contraceptives, women shared problem and **anaemia.**

- **Gender health inequity practices** related to change of absorbents used in menstruation, number of children, number of pregnancies, birth interval, received antenatal care, place of delivery and **common illness**.

- **Gender health inequity practices** related to restriction during menstruation, birth interval, number of pregnancies, number of children, place of delivery, practice of abortion and **menstrual problems**.

- **Gender health inequity practices** related to bathing at time of menstruation, use of absorbents during menstruation, change of absorbents, women's age marriage, number of children, age of pregnancy, number of pregnancies, received antenatal care, practice of abortion, place of abortion and **RTI.**


Chapter 5

DISCUSSION

The present chapter on discussion follows the results that were drawn in previous chapter from the data collected in field. It is divided into the following sections:

5.1 Demographic characteristics of rural women

5.2 Gender heath inequity and impact of IEC among rural women

5.3 Association between gender health inequity awareness among rural women and demographic characteristics

5.4 Rural women's health status and its association to gender health inequity practices

5.1 Demographic characteristics of rural women

Various demographic characteristics obtained from the results of the field information are discussed in the light of reviewed studies, under following heads –

5.1.1 Age

5.1.2 Education

5.1.3 Occupation

5.1.4 Type of family

5.1.5 Religion and caste

5.1.6 Socio economic status

5.1.1 Age

Age is considered as an important variable that has its influence on women's knowledge, perception about their health. Study indicates sufficient representation of all the age

groups among women. But, a vast majority of women were in their prime reproductive age where health issue is of great significance as most of the rural women (32.1%) in study were in age group of 18 to 24 years, 29.3% of women were of age 25 to 29 years; remaining rural women were at the age of 30 to 40 years. While, in the study by Al Olugbenga - Bello *et al.* (2011) more of the women were in the age range of 35 years and above followed by 20 to 29 years. Ye Yang *et al.* (2010)'s study also depicted that majority of women belonged to the 17–35 year old age group. Different situation was observed by Garg R *et al.* (2010) that majority of women were in the age group of 26 – 35 years. Earlier studies by Joshi N. *et al.* (2009) and Mustafa R. *et al.* (2008) also indicated that majority of women belonged to the age group of 21 – 30 years. Similarly, Bhandari G.P. *et al.* (2006) and Mao J (2007) indicated that most of the women were concentrated in ages of 20 – 29, 20 - 25 years respectively. On the basis of number of above mentioned supporting evidences, one can claim that age of a woman between ranges of 18 – 40 years is an important determinant to study gender health inequity among women.

5.1.2 Education

Education enhances the ability of individuals to achieve desired demographic and health goals (National Family health Survey -3, 2007). There is a wide gender disparity in the literacy rate in India according to census 2011. By confirming national scenario, present study reveals differentials in educational attainment of rural women and their husbands. It was found that more women (41.4%) were illiterate as compared to their husbands (10.4%). This information was a clear indication of the gender gap in education of the couples. There were several reasons behind it like lack of income resources, school

distance and cultural values of early marriages. Parents desire to wed their daughter over schooling. Bhandari G.P. *et al.* (2006) support these findings as they found that husbands of women were more literate as compared to them. Ye Yang *et al.* (2010) and Garg R (2010) also found that higher proportion of women had no schooling. Above findings also indicate the less access to education among rural women. This was because of strong stereotyping of female and male roles, males were thought of to be more useful and hence were educated. Females were pulled to help out on agricultural farms at home as they are increasingly replacing the males on such activities which require no formal education. But, in the study by Joshi N. *et al.* (2009) minimum numbers of women were illiterate and remaining had a minimum primary level of education. While in the present study, only 1.3 % of women had their education less than five years of schooling. Similarly, Mustafa R. *et al.* (2008) reported that minimum number of women had primary education while most of rural women were completely illiterate. While, 24% of rural women were found illiterate by Mao J (2007) and minimum level of education was matric among women. Present study also indicated that women who attended school, majority of them (19.2%) had completed 12 or more years of education. Similar trend was also observed by Varma G.R. *et al.* (2007) and Bhandari G.P. *et al.* (2006). Whereas, AI Olugbenga-Bello *et al.* (2011) found that most of the total women had secondary school education.

5.1.3 Occupation

Present study reveals that majority of women (60.9%) were not involved in any kind of occupation, because of their family responsibilities and their family / husbands' disapproval. This large scale detachment of women from productive sector was attributed

to cultural practices also. Majority of rural women were housewives as observed by Garg R (2010). While, Ye Yang *et al.* (2010) indicated in their study, that most of the women were farmers. Similar trend was also observed by Varma G.R. *et al.* (2007), Mao J (2007). Study indicates that, among women who were employed most of them (25.3%) were involved in agriculture. Agriculture is a part of the Indian economy and underlies most viable productive activity in the country but, it has been declining in current years. It is indicating from the findings related to husbands' occupation that only 17.2% of husbands were involved in agriculture work. According to them, income from agriculture did not satisfy their needs. Further, 4.0% of the husbands were unemployed and remaining husbands were involved in non agricultural occupation. All these statistics also indicated the clear division of labor between husband and wife, in which wife was considered as housekeeper and her husband was perceived as bread winners of the family. Hence in Indian rural society husband plays a fundamental role in household economy and wife depends completely upon her husband for her financial needs.

5.1.4 Type of family

Married women's attitude and behavior varies with respect to type of families (Ali and Sultan, 1999). Study depicts that most of the women (62.4%) belonged to nuclear family and remaining (37.6%) belonged to joint family. Reason behind this was 'quarrels', an everyday affair among women. Similar trend was observed by Rao K. *et al.* (2010) and found that the 63.5% of rural women were from nuclear family. This indicates that joint families are rapidly changing into nuclear families in rural areas also. Rural women, in the study, were also giving preference to live in nuclear family to address their socio -

economic needs properly. Thus, the joint family system was in the downward in the study area.

5.1.5 Religion and caste

Religious norms have a direct effect on women's attitude and behaviour. Study indicates that majority of women (95.7%) belonged to Hindu community and remaining women (4.3%) belonged to Muslim community. Similar findings were observed by Bhandari G.P. *et al.* (2006) that majority of the study population were Hindu by religion and almost all the rest are Muslim. In contrary, AI Olugbenga-Bello *et al.* (2011) found in their study found that most of them were Muslims. Present study highlights that in study sample, majority of women (48.5%) were from schedule caste followed by 16.4 % of the women were from general caste, 35.1 % of the women were from backward caste. Varma G.R. *et al.* (2007) also observed similar trend in their research that most of the women belonged to schedule cast. Caste system was very strong in rural areas. It has been also observed that villages were divided according to their religion and caste; rural women did not prefer to go from one side to another side of the village.

5.1.6 Socio economic status

Income of the household is also one of the indicators of household status and affordability of resources. Present study reveals that majority of women (52.5%) belonged to poor class, 31.8 % of women belonged to lower middle class, only 8.8% of women were very poor. While remaining (6.8%) were from upper middle class. Whereas, Joshi N. *et al.* (2009) in their study indicated that majority of rural women belonged to the lower socioeconomic group. Above findings indicate lower socio-economic status of

women which means the lower accessibility, affordability, acceptability and actual utilization of various available resources among women.

5.2 Gender heath inequity and impact of IEC among rural women

Findings related to awareness and practices of gender health inequity among rural women has been discussed under following headings –

5.2.1 Menstruation

5.2.2 Marriage

5.2.3 Reproduction

5.2.4 Contraception

5.2.5 Abortion

5.2.1 Menstruation

The occurrence of menstruation indicates the non-pregnant status of women. A missed period indicates the pregnancy. Menstruation becomes a central issue in a woman's life, as it has been indicated by previous studies. Many scholars also pointed out that the low social status of women in Indian society 'the culture of shame and silence' associated with their reproductive health matters make public discussion on these topics a taboo. Present study reflects incomplete knowledge and unscientific notions pertaining to practices and procedures of menstrual process among rural women of Jawan Block before intervention. In rural area, women did not like to talk about menstrual issues. For improving knowledge regarding menstruation, IEC, a flip book *"Masikdharm – Sharirik par chooachoot nahi"*; (Menstruation - Physiological but not untouchability), *string game*, *puzzle* and *Color TV*

were used in group sessions and personal meetings. These IEC aids covered physiological aspect of menstruation and maintenance of hygiene during menstruation like bathing, use of absorbent material, change of absorbent and restrictions (Annexure IV).

Study indicates that before IEC, most of the rural women (66.4%) were not aware about **physiological aspect of menstruation**, only minimum number (7.6 %) of rural women were aware about its physiological aspect and relates it with reproduction. Remaining had misconceptions like it just happens, result of a disease, curse upon them, 'natural process', untouchable process. Similar misconceptions were also observed by Anjum F., *et al.* (2010) where, women regarded menstruation as a natural process; perceived it as a disease and curse from God. In the study by Umeora *et al.* (2008), women considered themselves dirty or were just indifferent to menstruation. Study by Dhingra R (2007) and Singh A. J. (2006) also supports these findings and concluded in his study that rural women considered it as a 'curse upon them', which prevents them from performing any religious duties and rituals. It indicates the rural women's unawareness regarding scientifically logical understanding of menstrual process. After implementing IEC, present study depicted that majority of rural women (76.8 %) became aware with menstruation as physiological process and relate it with reproduction, while other remained unaware about it and had misconceptions. These improvements were found statistically significant ($p < 0.01$).

In the present study, with the help of IEC aids in personal meetings and group sessions, women were informed about the importance of hygiene with **bathing during menstruation**. Findings indicate the significant improvements ($p < 0.01$) in bathing practices among rural women after implementation of IEC. Most of the women started to

bath daily after implementing IEC (92.9%) as compared to before IEC (80.1%) as they thought that if they bathed daily during menstruation it would result swelling on abdomen and gynecological problems may occur. Similarly, Anjum F., *et al.* (2010) found that rural women avoided bath during menstruation.

Significant impact of similar IEC aids was also observed in **use of absorbent material** during monthly menstrual cycle ($p < 0.01$). Rural women (81.3%) who were using rejected old cloth without washing as an absorbent before IEC, after IEC sessions (73.5%) most of them women started to wash rejected old cloth before using and dry in sun thoroughly. Before implementing IEC, use of rejected cloth without washing was widely prevalent among rural women. The reason behind it was that they did not have access to contemporary treatment material such as sanitary napkin, tissue or clean cloth. They were unable to buy costly readymade sanitary napkins or lack of availability in rural areas (Dhingra R., *et al.*, 2007). In rural Bangladesh, Akhter S., (2007) reported that majority of rural women used old cloths during menstruation and moreover they reused them without washing them properly and drying thoroughly. Very few women used sanitary napkins (Singh A.J 2006). In the present study, as an impact of IEC aids this unhygienic practice was changed.

The significant impact of IEC aids *flip book, string game, puzzle game and colour TV* was not found in the practice of **changing daily menstrual absorbents**. As the practice of changing menstrual absorbents was satisfactory before IEC, significant number of women (90.9%) changed daily absorbents, but after IEC, more of rural (98.7%) started to change menstrual absorbent daily or two times in a day and they did not reuse it, remaining women continued to change it according to the condition. Due to lack of

resources, more improvements could not be expected. As women had limited amount of absorbent material so they could be expected to change it after every six hours.

During menstruation women were considered impure or contaminated or dirty. So, all kinds of **restrictions** were imposed on them like not to cook anything in kitchen, not to go to the place of worship or light the holy lamps etc (Singh A. J. 2006). In the present study, before IEC, rural women had restriction on eating (35.9%) as they were not allowed to eat pickle, curd, rice and other cold eatables and another restriction was in performing daily household chores (15.9%), however religious rituals were not taken into consideration in the present investigation. Study by Akhter S. (2007), also supports the findings as study observed eating restrictions in rural Bangladesh however items were different and women were not allowed to touch anything which is holly and sacred. Similarly, Anjum F. *et al.* (2010) reported that rural women avoided meat, eggs, pickle, fish, milk, yogurt, lady finger and cold drinks during menstruation. Similar findings were also observed by Umeora *et al.* (2008) in rural Nigeria. Singh A J (2006) also found similar restrictions on eating cold things like rice, curd, milk. Women had misconception that consumption of such things leads to pain during menses hence they believed in taking some hot things (dry ginger powder, spices, chilies, and jaggery) every month so that the period comes on early and on time. For removing these misconceptions, during IEC sessions, except physiology of menstruation, women were also told the importance of those eatable items for their health that were prohibited during menstruation and physical activity. IEC aids in personal meetings and group sessions had significant impact ($p < 0.01$) in reducing number of women who faced restrictions during menstruation. Number of women, who faced restrictions, was found to be decreased,

most of women (79.3%) stated that there was no restriction among them, while remaining had restrictions on either on own eating or to do daily household chores.

5.2.2 Marriage

Marriage at a young age often in the absence of physical and emotional maturity undermines the ability of young women to make informed decisions about their lives. Early marriage is still a major social problem in Indian societies especially in rural areas. Present study indicates that **marriages** occurred very early among rural female. In the study area it was observed that majority of women (42.9%) got married between ages 15 to 17, followed by 30.6% of the women who got married at 18 to 20 years, 16.9% of women got married when they were less than 15 years and minimum number (9.6%) of women got married at the age of 21 to 24 years. These findings are supported by Akhter S, (2007), observed that the age at marriage for girls among rural women in Bangladesh was thirteen to sixteen years. In rural area 54% of women got married in this age group. Earlier, study conducted by Sidramshettar, S.C., (2004) in Rural Karnataka found that nearly half (58%) were married before reaching the legal minimum age at marriage ie between 10 to 14 years. Sivaram M. *et al.* (1995) also reported similar observations. Though, among those who thought that they married too early, most of them of rural females reported that they were married early because their parents wanted them to (Choe. M. K *et al.*, 2004). Above findings indicate that early marriage still at its high time while this prevalent traditional practice of the rural India is abolished. However this is only possible when there is sufficient awareness and education of its drastic consequences. Present study indicates ignorance, lack of adequate information and proper awareness among rural women about the issue of marriage for girls at right age and

adverse effects of early marriage. To build awareness regarding ill effects of early marriage on women, marriage at right age and to change the favoring attitude towards early marriage, IEC was conducted. IEC aids *flash cards on Chhoti si dulhan* (The Little Bride), *puppet show on Ramsakhi ki shadi* (Marriage of Ramsakhi) was conducted in group sessions. Personal meetings with the help of *flow chart on Atharah ke bad shadi, shadi me na kare jaldwaji* (Marriage after eighteen, not be early) were also conducted (Annexure IV). These IEC aids covered the issue of legal age of the marriage (18 yrs for the girls and 21 yrs for the boys), problems of early marriage, severe health problems like anemia, early pregnancy affecting the health of newborn and increased risks of mortality and skill development of girls (Annexure IV). Because the major reason for marrying girls early was dowry and social insecurity therefore attention was given on skill development of girls. These IEC aids had significant impact on women regarding issue of marriage.

Before IEC 20.2% of women did not know about the **right age of marriage** and according to 8.6% of women right age of marriage was before eighteen, according to 35.6% of women, right age of marriage was eighteen. Women who were married at right age of marriage were aware about it. While, according to 32.8% of women right age of marriage for girls was after eighteen. However, 2.5% of women gave other answers; according to them there was no criterion of right age of marriage as whenever it becomes possible after starting menses or when elders of the family take decision, girl should marry. Further, after implementing IEC, majority of women (88.6%) became aware about right age of marriage 'eighteen', while 6.3% of women said that right age marriage was after eighteen, others remain unaware. Above findings indicates highly significant

improvement ($p < 0.01$) in awareness regarding right age of marriage among women after implementation of IEC.

IEC aids *flash cards, puppet show and flow chart* also had significant impact in changing **attitude of rural women towards early marriage**. In the present investigation, before intervention, 13.9% of women gave opinion in its favor that 'early marriage is right'. According to them if parents marry their daughters early they become free from their responsibility. Other reasons for supporting early marriage were social standing, insecurity of girls and dowry. This indicates the effect of tradition norms in the opinion regarding early marriage among women. Remaining (9.3%) of women gave other answers, according to them early marriage was wrong but due to harassment of women like rape and teasing it was right and 28% of women were not aware about it and they did not give any opinion. After intervention opinion on early marriage among rural women became improved. In the opinion of majority of women (90.2%) it was wrong, comparatively high from before intervention, however others remained unaware. These improvements were found to be statistically significant ($p < 0.01$) also.

IEC aids *flash cards, puppets and flow chart* also had significant impact on awareness regarding ill **effects of early marriage on health of women**. Present study indicates that majority of rural women (69.9%) were not aware regarding the effect of early marriage on their health and 2.3% of women said that ther was no effect of early marriage on health of women. Most of the women, who were aware about the ill effect of early marriage on women's health, had already experienced these problems. They argued that the health of girls who married early was at risk, including complications such as low birth-weight babies or, in extreme cases, leading to the death of the mother after delivery

(Parveen S, 2007). After implementing IEC, awareness regarding effect of early marriage among rural women was found to be increased. Most of women were aware about effects of early marriage on women's health. Among them 20.2% of women were aware about 'stop physical development of girls', 13.9% of women were aware about 'weakness', 29.8% were aware about 'early pregnancy death and disability', 1.3% of women were aware about RTI/STD, 16.9% of women were aware about all and others remain unaware. These findings indicate significant improvement ($p < 0.01$) in women's awareness regarding health consequences of early marriage after implementation of IEC.

5.2.3 Reproduction

It is a common phenomena that pregnancy and childbirth are special events in women's lives, and, indeed, in the lives of their families. This can be a time of great hope and joyful anticipation, only when it happens safely. It can become possible when women become aware regarding issues of pregnancy and child birth. In the present study, considerable proportions of women were not aware regarding these issues. Women thought that pregnancy and child birth was natural therefore there was no need to pay attention on it. IEC was implemented for changing attitude about reproduction and related issues. IEC aids, *flip book on Swasth ma swasth shishu* (Healthy mother healthy baby), poster *Garbabastha me rakho dhyan – Pao ek swasth pran* (Take care of women in pregnancy – get a healthy life), *Bhrun vikas* (Foetal development) and *card game* on antenatal care were implemented on the issue of reproduction (Annexure IV). These IEC aids covered the issue of number and gender composition of children, age of pregnancy, birth interval, antenatal care, delivery and nearby facilities that women can access during pregnancy. Initially, women were explained that how their baby develop in their womb

with the help of a poster on *Bhrun Vikas (foetal development)*. As, better understanding of foetal growth and development and its relationship to the mother's health can result in increased attention to the potential care to improve both maternal and newborn health. Other issues were taken into consideration subsequently.

Above IEC aids indicate significant impact on **awareness regarding number of children** among women. Present study observes that before IEC, higher proportion (37.9%) of women considered two to be the ideal number of children. Similarly, Dey Indira *et al.* (2009) and Varma G.R. *et al.* (2007) observed that a majority of women considered two to be the ideal number of children. Present study observes that three or more to be the ideal number of children was considered by 37.9% of women. Study by Puri S. *et al.* (2007) supports the finding as in their study substantially higher proportions of women responded that the desirable number of children was three and for a few women it was recorded as more than three. After implementing IEC in present study, number of women (86.6%) was increase who favours two children, as the ideal number of children. While, remaining women were in favour of one child and three or more children as the ideal number of children. These findings indicate that IEC aids *flip book on Swasth ma swasth shishu* (Healthy mother healthy baby) brought significant improvement in women's awareness regarding number of children ($p < 0.01$). Further, in the present study, regarding the number of children women had, observes that majority of women (36.1%) had more than three children followed by higher proportion (32.1%) of women had one child, 18.4% of children had two children, 13.4% of women had three children. Similarly, Mustafa R. *et al.* (2008) reported that the majority of women had

more than five children. While, Sharma S. *et al.* (2009) found that majority of women had three children.

Similarly, effect of IEC was also found in **awareness regarding the gender composition** of the children among rural women. Present research indicates that before IEC, majority of women (46.2%) considered one boy and one girl as ideal gender composition of their children. However higher proportion of women (27.8%) desired more sons than daughters, while minimum number of (2.3%) women wanted more daughters than sons. A desire for only son was noted among 19.2% of women compared to 0.8% who wanted only daughters. Similarly, Dey Indira *et al.* (2009) also observed these findings as ideal gender composition of the children was one son and one daughter as considered majority of the mothers. In the study by Varma G.R. *et al.* (2007), Puri S. *et al.* (2007) most of the women opted for son. These findings indicate higher male preference among rural women. The reason behind it was economic dependency of female on male and marriage of a girl leads to extra financial burden on their family. During IEC sessions, attention was also given on skill development of girls. After implementing IEC aids more rural women became in the favour (60.9%) of one boy and one girl both as ideal gender composition of their children. Higher proportion of women (34.8%), considered that sex of child does not matter for them. Remaining women's views were not influenced by IEC aids regarding gender composition of child. These findings indicate the significant impact of IEC aids in changing women's gender preferences of children ($p < 0.01$).

Regarding **age of pregnancy** in the present study, before IEC, it was found that the awareness regarding age of pregnancy among rural women was low as majority of

women did not know about the right age of pregnancy. Only 8.8% of women were aware about the right age of pregnancy (< 22). After implementing IEC aids, it was observed that majority of women (83.6%) became aware about right age of pregnancy (20 years or < 22) whereas 10.4% of women considered 24 years or after as the right age of pregnancy, < 24 years age of pregnancy were considered by 2.3% of women and remaining women remained unaware. These findings indicate improvements in women's awareness regarding age of pregnancy after implementation of IEC ($p < 0.01$). Women's perception reflect in their practice, it was found with age of first pregnancy of these rural women, as majority of women first pregnancies occurred before the right age of pregnancy. Akhter S. (2007) endorsed these findings that majority of first pregnancies occur at sixteen to seventeen years for rural women, the teenage mother neither have sufficient knowledge about the process of pregnancy nor are they ready psychologically and physically for childbirth. Further, analysis of number of pregnancies indicates that majority of women (31.3%) had one pregnancy, 14.6% of women had two pregnancies and 10.4% of women had three pregnancies. While, 18.9% of women had four pregnancies and 16.2% of women had five pregnancies. Remaining 16.7% of women had six or more pregnancies. Different trend was also observed by Ye Yang *et al.* (2010) that majority of women had ≥ 3 pregnancies.

Present study indicates that before IEC, majority of women were not aware regarding the **interval between births of two children**. This reflects from the interval between their children as among 7.8% of women birth of their children occurred after 36 months of a previous birth and among majority of women (51.8%) birth of their children occurred within less than 18 months. Moreover, only 22.7% of women considered >36 months as

correct interval. After implementing IEC aids *flip book on swastha maa swastha shishu* (Healthy mother healthy baby), majority of women (66.4%) became aware about > 36 months of birth interval. However, 1.5% of women considered <18 months as right birth interval, 22.5 % of women considered 18 – 35 months as right birth interval. Remaining women remained unaware about it. These findings indicate significant improvements ($p < 0.01$) in women's awareness regarding birth interval after implementation of IEC.

Regarding the **consent of last pregnancy** among rural women, study depicted that 53.8% women reported that their last pregnancy was wanted, 42.2% stated their last child was not wanted while the remaining 4% said that they did not think about it. Similar trend was also observed by Dibaba Yohannes (2010) that about 39% of women reported that their recent pregnancy was unintended. It reveals that higher proportion of pregnancies were either accidental or decision of other family member. However decisions regarding number of children to have and time to have another child are all controlled by the men (Odimegwu C. and Okemgbo C N. 2003) in rural areas.

Present research reveals that majority of women (53.8%) were aware about at least one bad **consequence of closed birth interval** between two children as compared to 45.5% of women who were not aware about it. Findings indicate that rural women were not completely aware about the consequences of birth interval between two children. While, after implementing IEC aids, data indicated that most of women (79.8%) were aware regarding bad consequences of closed birth interval as compared to 20.2% of women were not aware about it. Improvements in women's awareness regarding consequences of birth interval between two children after implementation of IEC were significant ($p < 0.01$).

Present study highlights the significant impact of IEC aids *flip book, poster and card game* on **awareness regarding antenatal care among rural women**. Card game was specifically prepared for antenatal care among rural women. After implementing these IEC aids, it was found that most of the women (28.8%) had complete information regarding antenatal care as compared to before IEC that, only 2.8% of women had complete information about antenatal care including full package of antenatal care and number of visits. While, other 66.9% of women also had information about ANC after IEC as compared to 56.6% of women, before IEC but it was incomplete. Ye Yang *et al.* (2010) also endorsed the findings and found that most of the women lacked sufficient knowledge about antenatal care. These findings indicate significant ($p < 0.01$) improvement in women's awareness regarding access to antenatal care after implementation of IEC. Akhund S *et al.* (2011) also revealed positive impact of intervention among women regarding awareness about ANC. Majority of women (90%) of the women understood the messages with the help of sketches on ANC.

Regarding, **women's access to antenatal care**, Matthews Zoe *et al.* (2001) in her research revealed that at first glance, the situation with regard to antenatal care utilization was encouraging among rural women. Present study also observes similar situation but majority of women (75.5%) got incomplete antenatal care, minimum number of women (6.8%) got complete antenatal care, whereas remaining 17.7 % of women did not get antenatal care. The main reason was that they believed that pregnancy being a natural phenomenon did not need any special care (Metgud C. S. *et al.*, 2009). Similarly, Pradhan A. (2005) observed that majority of women (78%) were benefited by antenatal care services. Earlier, a study by Kalita D.K. (2001) concluded that about 96% mothers had

registered their names ANC. Above findings indicate the effect of lack of information and proper awareness about ANC on accessing it.

Study reveals that most of the **women's deliveries** (56.6%) were done at home and local birth attendant of the village performed this task. It was customary, to keep a woman in 'isolation' after the delivery in her natal home (Ram F. *et al.* 2006). Similar observations were observed by Garg R. (2010) that majority (66.1%) of women's deliveries were found to have taken place at home. In the current study rest of the deliveries were performed at health facilities i.e. government hospital (16.7%), Community health center of the Jawan block (11.1%), private hospital (15.7%). In contrary, Pradhan A. (2005) studied that most of the deliveries were hospital deliveries assisted by the doctors. Earlier a study by Kalita D.K. (2001) endorsed the findings of present study and stated that most of women's deliveries took place at home and normal deliveries were higher among those that took place at home.

Present study indicates the **women's awareness regarding place of delivery** that according to majority of women (46.7%) home was suitable place for delivery, as it was economic and accessing hospital facility for delivery was costly or difficult due to unavailability of transportation. Present study indicates that 21.2% of women were aware to go to hospital for delivery, 18.9% of women were aware to go private hospital, 10.6% of women gave other answers. according to them if pregnant woman have any problem in delivery, she must go to hospital either private or government if she does not have any problem in delivery, home was best place for it and remaining 2.5% of women were aware of CHC for delivery. Whereas, after IEC, majority of women became aware about safe place for delivery as during investigation they were informed about health risk of

unsafe deliveries for them and their babies. Most of the women agreed to access hospital for delivery specifically government hospital (56.7%) because cost was one of a factor for not accessing hospital for delivery among women and their family also. During IEC sessions, they were also informed about facilities under Janani Suraksha Yojana and support of ASHA (Accredited Social Health Activist), they became in favour of it. However, only 4% of women were aware of CHC for delivery because apathy of CHC staff. While, 10.4% of women were aware of private hospital. Only 4% of women said that home was suitable place for delivery and 25.3% of women gave other answers but responses were different from before intervention. According to them, women must access hospital facility at the time of delivery either government or private. Above findings indicate significant ($p < 0.01$) improvements in women's awareness regarding place of delivery after implementation of IEC aids.

5.2.4 Contraception

Earlier studies indicated that despite the availability of highly effective methods of contraception, many pregnancies are unplanned and unwanted. The utilization of the contraceptives affected with lack of proper information and awareness about the method among the users. In the present investigation, IEC was implemented to raise the **awareness of rural women regarding contraceptives**. IEC aids story cards *Chhota pariwar swastha pariwar* (Small family healthy family), *Posters on Parivar Niyojan ke sadhan* (Contraceptives), *Beti ho ya beta parivar rakhe chhota* (Either girl or boy but family must be small), *Doosre bachhe me antar laye – Swasth pariwar payen* (Interval between two children – Get a healthy family) were based on various contraceptives for women and their husbands, need of these contraceptive for their healthy family

(Annexure IV). These IEC aids had significant impact ($p < 0.01$) on women regarding their awareness on various contraceptives. Present investigation, depicts that after implementing IEC aids in group sessions and personal meetings, more rural women (97.5%) became aware about contraception as compared to 63.1% of women before IEC. It was also found by AI Olugbenga-Bello *et al.* (2011) and Tuladhar H *et al.* (2008) that majority of the women had good knowledge about contraception. Similar trend was observed in the study by Mao J. (2007). Majority of women knew about birth control measures. Majority of the women were aware about the mechanical method of family planning i.e. loop and condoms (65.3%) followed by chemical method i.e. oral pills (58.6%). Awareness about the natural method was low (42.6%) (Sharma B. *et al.*, 2005). Though rural women were aware about various contraceptives before IEC but they were not aware about its need. It was reflected in use of contraceptives. Present study observed that before IEC majority of women (59.3%) were not using any contraceptive. Tuladhar H *et al.* (2008) found similar situation but methods were different. The main reasons were found that they did not have need to use it, followed by not have information about it and husbands' disapproval, fear of side effect and non availability. Husbands' disapproval for using contraceptives was also observed by Shah N. A. *et al.* (2008) and Kaushik S. *et al.* (2003). Other similar reasons were also observed by Kaushik S. *et al.* (2003) as women were not using contraception due to the fear of side effects, they belief they did not need due to infrequent sexual relation and they were "too old". Non availability of contraceptives was also observed by ARTH (2000). Some women also felt that using pills might adversely affect subsequent childbearing. During IEC sessions these reasons were discussed with help of story cards. With the help of these aids they were told to reduce

sexually transmitted disease also and were counseled to talk to their husbands. After IEC, study reveals that higher proportion of rural women started to use contraceptives. Female and male sterilization were reported to use by 13.6% and 2.8% of women respectively. Further, 6.3% of women were using contraceptive pills, 4.0% of women were using IUD, 2.0% of women were using injectable, 27.3% were using condom and 1.8% were using Rhythm. These findings indicate the significant ($p < 0.01$) improvements in women's use of contraception after implementation of IEC. Similarly, Bertrand J.T. *et al.* (1982) found a strong association between family planning communications and the adoption of a contraceptive method. Majority of women showed marked improvement in knowledge regarding family planning after IEC intervention.

However, in rural area, the use of contraceptives regarded as the wife's responsibility (Sharma B. *et al.* 2005). But they do not have power of taking **decision regarding contraception**. Present research depicts the similar situation as use of contraception was the decision of only 3.8% of women, while, 29.3% of women's husbands alone took decision regarding use of contraceptives and 41.7% of women and their husbands both took decision regarding use of contraceptives. AI Olugbenga-Bello *et al.* (2011) also had similar observation, they reported that 37.4% women's husband solely decided on family planning, among 21.4% of women it was their decision but among 41.2% women, it was a joint responsibility of husband and wife. Further, study indicates that after IEC 12.9% of women stated that to use contraceptives was their decision, while 18.2% of women stated that their husbands alone took decision regarding use of contraceptives. Further, most of the women (65.9%) stated to take decision with their husbands regarding use of

contraceptives. Findings indicate significant improvements ($p < 0.01$) in women's decision making regarding contraception after implementation of IEC.

Present investigation describes the **side effects of contraceptives** among women. Regarding the side effects of contraception 10.9% of women reported irregular menstruation followed by 2.8% allergy, 1% of women reported amenorrhea, 1% of women reported lower abdomen pain, 0.8% of women reported weakness, While 24.7% of women did not experienced any side effect. Amenorrhea, irregular bleeding, weakness, lower abdominal pain as side effect of different contraceptives were also observed by Shah N. A. *et al.* (2008). Present study also reveals that if women had any problem while using contraceptive, whether they shared it with their husband or not. It has been observed that 11.4% of women were not sharing problems because using contraception was their decision and husband would not understand their problems. Further, 27% of women did not have any problem to share it. During IEC session women were counseled to share their problems with their husbands because husband and wife both had to bear the responsibility of using contraceptives. After implementing IEC, data indicates that more women (15.9%) started to share their problems related to contraception as compared to before IEC. These findings indicate significant improvements ($p < 0.01$) in women's sharing problems regarding contraception after implementation of IEC.

5.2.5 Abortion

Earlier studies have pointed out that the issue of abortion affects many women in the world; it is 'poor, adolescent, rural women who suffer the most. Present study considered the issue of abortion, either safe or unsafe affects the health of women. In the study IEC

was conducted to bring change in the **attitude of women towards aborting their child.** IEC aids flash cards *'Ladka hi hoga'*, (Will Be Son), poster Garbhpat – *Sehat par asar* (Abortion – effect on health), *Paper folding* game were based on ill effects of abortion on women's health (Annexure IV). IEC was also focused to use contraceptive rather practicing abortion. These IEC aids had significant impact ($p < 0.01$) in changing rural women's opinion on abortion. Present study reveals that 11.1% of women favoured abortion while 35.1% of women reported it as wrong. On the other hand 7.1% of women gave other answers. According to them abortion is right if family have one or more daughter without any son or if the woman and her family did not want more child otherwise it is wrong. After implementing IEC, majority of women (75.3%) became against it while remaining women remained unaware.

Further, study depicts **the number of abortions** experienced by rural women that 13.4% of women of all interviewed women had experienced one abortion over their lifetime, while, 7.8% of women had experienced two abortions. Remaining women experienced none of the abortion. These finding are sustained by Jejeebhoy S. J. (2011) as in her study, 11% of all women interviewed had experienced one or more abortions over their lifetime. Similarly, Getahun H. (2000) also found a lifetime history of abortion as 20.8% of the women but the mean number of abortions per woman was higher. Present investigation highlights the reasons of practicing abortions among women, reasons for seeking abortion among rural women were 'don't need any more daughter' (10.6%) and 'don't need any more child' (9.8%), doctor's advice (0.8%). Supporting these findings, Dhillon B. S. *et al.* (2004) also observed similar reasons as 'don't need any more children' and 'don't need any more daughters' for seeking abortion among rural women.

Aborting the birth of a girl child and limiting family size as the reason for the abortion were also observed by Ganatra B. *et al.* (2001).

Regarding **place of abortion**, present research reveals that considerable proportion of women had sought pregnancy termination form private hospitals where successful abortions had been performed by doctors and had gone surgical abortions. Successful surgical abortions by doctor among majority of women were also observed by Jejeebhoy S. J. (2011). Further study points out that only 1% of women accessed government hospitals followed by CHC/ PHC (0.8%). Self introduced of hard material in vagina was used for inducing abortion by 4% of women. Pregnancy termination by unqualified providers was reported by 0.8% of women. Dhillon B. S. *et al.* (2004) supports the findings as in their study it was found that majority of women accessed abortion services from private clinics as compared to government hospital and PHC/CHC. Similarly, self-introduction of hard material in the vagina and chloroquine over-dosage for inducing abortion was also found by Getahun H. (2000). The decision to terminate the pregnancy and place of abortion was made by the husband. Further present study indicates the health problem faced by women after abortion. Women who practiced abortion over a life time, among them 9.1% of women did not face any problem after abortion, 7.1 % of women reported incomplete abortion followed by severe bleeding (2.5%), chronic pain (2.0%), infertility (0.5%). Similar observations were also found by Ganatra B. *et al.* (2001) as in their study three quarters of the women reported one or more problems like severe bleeding, menstrual irregularities and weakness after abortion.

During IEC sessions with the help of IEC aids, reasons for practicing abortion and post abortion morbidity were discussed and they were counseled to not to practice abortion in

any case except doctor's advice as, abortion affects women's health. Study depicts the significant impact ($p < 0.01$) of these IEC aids on **awareness regarding health consequences of abortion** among rural women where before IEC, majority of women were not aware about consequences of abortions on women's health. After implementing IEC aids *flash cards, poster and paper folding games*, most of the women became aware regarding consequences of abortion on health. About 29.3% of women reported RTI/STD followed by infertility (23%), weakness (14.1%), all above (15.7%). 'Nothing' was stated by 2.3% of women.

Above findings indicate significant impact of various IEC aids like *flash cards, flip book, story card, puppets, posters and games* on issues of menstruation, marriage, reproduction, contraception and abortion. Similarly, Mishra B.N. *et al.* (2008) observed significant improvement in the knowledge and practice of women after implementing printed health educational material. These statistics indicates that IEC and women's awareness regarding gender health inequity were significantly associated *i.e.* IEC aids are effective tools to bring behavioural changes among rural women regarding gender health inequity.

5.3 Association between awareness regarding gender health inequity among rural women and demographic characteristics

Study shows the association between socio demographic characteristics and menstruation among rural women before and after IEC. It is common perception that women gain more experience and knowledge about social issues, as they get older. This experience gives them better understanding to make decision about their life. In contrast, women of younger age have less experience and are less knowledgeable. This indicates association

between age of women and knowledge of social issues. Similarly, present study indicates significant association between pre IEC awareness about menstruation and age of women, occupation of women ($p < 0.05$), religion, socio economic status and education ($p < 0.01$). Further, post IEC awareness regarding menstruation was found to be insignificant with demographic characteristics of women. Study also indicates significant association between before IEC bathing at the time of menstruation and socio economic status at ($p < 0.05$) and religion ($p < 0.01$), further, between post intervention bathing at the time menstruation and rural women's education ($p < 0.05$) and religion ($p < 0.01$). Study observes significant association of use of absorbent material during menstruation among women with education, occupation, religion, age and socio economic status ($p < 0.01$) before IEC and education, occupation, religion, socio economic status age ($p < 0.01$) after IEC. Similarly, statistically significant and strong relationship of education of the women and socio economic status with their menstrual hygiene practices in terms of using material either as 'Used cloth', 'Fresh cloth', 'Sanitary pads' or 'Home-made pads' was also found by Singh S. *et al.* (2011). While, change of absorbent material during menstruation was significantly correlated with rural women's education and socio economic status of women ($p < 0.01$) before IEC and post IEC with age ($p < 0.01$), education ($p < 0.05$) in the present study. Whereas, restrictions during menstruation among rural women was significantly correlated with age, religion ($p < 0.01$), education ($p < 0.05$) before IEC while post IEC with age ($p < .001$), religion and occupation ($p < 0.05$). Above findings indicates that demographic characteristics are significantly associated with overall awareness regarding menstruation before and after IEC. In contrast, Parmar V, (2010) revealed that the demographic characteristics as age and

literacy level of the participants had no significant effect on the knowledge level related to menses.

Present research depicts significant association between awareness regarding age of marriage among women and age of women ($p < 0.05$), occupation, socio economic status of women, education ($p < 0.01$) before IEC and between post IEC and religion ($p < 0.01$) only. Further, significant association was found between opinion on early marriage among women and education, socio economic status of women ($p < 0.01$) before IEC. On the other hand, post IEC opinion on early marriage was significantly correlated with age ($p < 0.01$) only. While, before IEC awareness regarding effect of early marriage among women was significantly associated with education, religion and socio economic status of women ($p < 0.01$). Whereas, post IEC awareness regarding effect of early marriage on health was significantly correlated with education, occupation and religion of rural women and socio economic status ($p < 0.01$). Above findings indicates significant association between demographic characteristics and marriage before and after intervention among rural women conforming the findings of earlier studies. For example Parveen S (2007) that women's education was positively correlated with their level of gender awareness i.e. timing of marriage.

Present investigation shows significant relationship between pre IEC awareness regarding number of children among women and their age, socio economic status of women, education ($p < 0.01$), occupation ($p < 0.05$). While, post IEC awareness regarding number of children was significant with age, socio economic status of women, education and occupation ($p < 0.01$). Further, study indicates that pre IEC gender preference of children among rural women had significant relationship with education, occupation ($p < 0.01$)

and religion of women ($p < 0.05$). Except it, post IEC gender preference was positive and significantly correlated with education, occupation of rural women, age and socio economic status of women ($p < 0.01$). Further, present investigation depicts significant association between pre IEC awareness regarding age of first pregnancy and socio economic status of women, education of rural women ($p < 0.01$). Post IEC awareness regarding age of first pregnancy had significant relationship with religion ($p < 0.01$) and socio economic status of women ($p < 0.05$). Study shows relationship between demographic characteristics and awareness regarding birth interval between two children among women. Pre IEC awareness regarding birth interval between two children among women was found to be positive and significantly correlated with age of women and socio economic status of women, education, occupation, religion ($p < 0$ .01). Whereas post IEC awareness regarding birth interval between two children was found to be positively significant with occupation of rural women, socio economic status of women ($p < 0.01$). Further, post IEC awareness regarding birth interval between two children was found to be insignificant with age, education and religion ($p > 0.05$). Study shows significant correlation between pre IEC awareness regarding consequences of closed birth interval among women and socio economic status of women ($p < 0.05$), religion, education ($p < 0.01$). Further, post IEC awareness regarding consequences of closed birth interval on health among women was found to be positively significant correlation with age of women, education ($p < 0.01$). Present investigation highlights significant relationship between pre IEC awareness regarding antenatal care among women age of women, socio economic status of women, education ($p < 0.01$). Study indicates, significant correlation between pre IEC awareness regarding place of delivery among

women education, socio economic status of women ($p < 0.01$), occupation, age ($p < 0.05$). On the other hand post IEC awareness regarding place of delivery was significantly correlated with education and religion ($p < 0.05$). Above findings indicates significant association between demographic characteristics and reproduction before and after intervention among rural women. Supporting the above findings, Hadi A, (2001) found that education appeared to play a significantly positive role in raising women's perceptions regarding timing of childbearing.

Study shows significant correlations between pre IEC awareness regarding contraception socio economic status of women ($p < 0.05$), age ($p < 0.01$). On the other hand, post IEC awareness regarding contraception was found to be significant with socio economic status ($p < 0.01$). Further, study found significant correlation between pre IEC use of contraception and occupation of rural women, age ($p < 0.01$). Post IEC use of contraception was found to be significantly correlated with rural women's education, occupation, religion, age, socio economic status of women ($p < 0.01$). Further, study pointed out significant relationship between post IEC decision making regarding contraception among women and occupation of rural women ($p < 0.05$), socio economic status of women ($p < 0.01$). Study indicates a significant correlation between pre IEC problem sharing regarding contraception among women and rural women's occupation, socio economic status, education ($p < 0.05$), age ($p < 0.01$). On the other hand, post IEC problem sharing regarding contraception among women was found to be significant with religion, socio economic status of women ($p < 0.05$), education, age ($p < 0.01$). Above findings indicates significant association between demographic characteristics and awareness regarding contraception before and after intervention among rural women.

Supporting the above findings, Hadi A, (2001) also found that significant relationship between education and women's perceptions regarding contraception. Similar findings were also observed by Okezie C. A. *et al.* (2010). Usage of contraceptives was higher among literate as compared to illiterate women (Ladusingh L. *et al.* 2006). In contrast, no significant association of contraceptive usages was observed with literacy while statistically significant association of contraceptive usage was seen with religion and the age of female by Hussain N 2011. Except it, religion played an important role in determining the attitudes of the people in limiting the family. Non-acceptors of family planning methods were higher among the Muslims (Mohanan P. *et al.* 2003). Similarly, Bertrand J.T. *et al.* (1982) concluded that education, working status of women and SES play a vital role in success of IEC interventions on family planning.

Study indicates significant relationship between pre IEC opinion on abortion and age ($p < 0.05$) and education ($p < 0.01$). On the other hand, post IEC opinion on abortion was significantly associated with religion, education ($p < 0.05$). Further, study shows significant correlation between pre IEC awareness regarding consequences of abortions among women socio economic status, education ($p < 0.01$). Above findings indicates significant association between demographic characteristics and awareness regarding abortion among women before and after IEC.

5.4 Rural women's health status and its association to gender health inequities practices

In this section, association between rural women's health and gender health inequity has been discussed under following sections –

5.4.1 Rural women's health

5.4.2 Association between rural women's health status and gender health inequity practices

5.4.1 Rural women's health

Present study depicts that majority of rural women (67.2%) possessed normal BMI (18.5 – 24.99 kg/m^2), 25 % of rural women possessed low BMI (< 18.50 kg/m^2) and 7.8% of rural women possessed BMI above > 25 kg/m^2. Rout N R (2009) sustained these finding as study evidenced that majority of rural women were having normal BMI. As far as anaemia was concerned, present investigation highlights that majority of women (56.3%) had moderate anaemia, 23.5% of women had mild anaemia, 7.8% of women had severe anaemia, remaining were normal. While, Gupta S K. *et al.* (2010) also found that among the study group majority of women were anemic. Whereas in rural Delhi Gautam V. *et al.* (2002) high prevalence of anaemia among rural women as compare to findings of present study. Above findings indicates that however most of rural women were having normal BMI but anaemia was widely prevalent among them. In the present study, majority of women were suffering from pain in joints and back ach followed by constipation, diarrhoea, fever, tuberculosis. Sharma R.K. (1986) also found that rural women were suffering from constipation, diarrhea. While coming to the menstrual problem among rural women, in present research, majority of rural women had no menstrual problem (55.3%), followed by Oligomenorrhoea, menorrhagia, delayed cycle, polymenorrhoea and genital infection. Rathore Monika *et al.* (2003) in rural area of Rajasthan" found lower prevalence of menstrual problem. Whereas, Singh S. K. *et al.* (2001) observed in rural Maharashtra that few rural women were having at least one menstrual problem.

Painful period (dysmenorrhea) and scanty bleeding (hypomenorrhea) were the two leading problems.

Regarding prevalence of reproductive tract infection among rural women present investigation indicates that 43.7% of women were suffering from lower reproductive Tract Infection and only 0.5% of women were suffering from upper reproductive tract infection. Similarly, Pant B. *et al.* (2008) observed that women reported symptoms suggestive of reproductive tract infection. Rathore Monika *et al.* (2003) also observed similar situation in rural Rajasthan, women were suffering from RTI. Women were suffering from 'Vaginal discharge' , 'Itching', 'Boils', 'Pain abdomen' ,'Pain during sexual intercourse', 'Backache', 'Lymph node enlargement' (Singh Sadhana *et al.*, 2011, Sharma S *et al.*, 2009, Kanitkar *et al.*, 2004).

5.4.2 Association between rural women's health status and gender health inequity practices

Study indicates significant relationship between body mass index and bathing at the time of menstruation, use of absorbents among women ($p < 0.01$). While, insignificant relationship was found between body mass index of women and change of absorbents used in menstruation and restriction during menstruation ($p > 0.05$). Further, study highlights that there was an insignificant relationship between anaemia among women and bathing during menstruation, use of absorbents, restrictions during menstruation ($p > 0.05$). Anaemia was significant with change of absorbents during menstruation ($p < 0.05$). Study also points out a significant relationship between change of absorbents ($p < 0.05$) and common illnesses among women. While, bathing during menstruation, use of

absorbent material, restrictions during menstruation ($p > 0.05$) were insignificant with common illnesses. Further, study indicates an insignificant association between bathing during menstruation, use of absorbent material, change of absorbents during menstruation ($p > 0.05$) and menstrual problems among women. Significant relationship was observed between common illnesses and restriction among women ($p < 0.01$). Study indicates a significant correlation between RTI among women and bathing at the time of menstruation ($p < 0.05$), use of absorbent material ($p < 0.01$). Singh S. *et al.* (2011) observed that RTI symptoms were strongly associated with menstrual hygiene practices of re-using 'cloth'. Women who were using 'Used cloth' during menstruation, most of them reported RTI symptoms as compared to women who were using 'fresh cloth', 'sanitary pad', 'Home made pads'. Pant B (2008) also reveals that prevalence of RTI was significantly higher in women who used unworked clothes during menstruation as compared to women who used either washed clothes or sanitary pads. While, present study reveals that RTI was insignificant with number of absorbents during menstruation and restriction during menstruation among women ($p > 0.05$).

Present study highlights a significant association of body mass index, anaemia, reproductive tract infection with women's age of marriage ($p < 0.01$). Women who married before the age of 18 years majority of them reported RTI (Pant B. *et al.* 2008). Kanitkar *et al.* (2004) also observed similar situation that RTI prevalence rate was highest among women who married at age 15 years and lowest for women married at 19 years or above. Further, study also reveals an insignificant relationship of common illnesses and menstrual problems among them with women's age of marriage ($p > 0.05$).

Study indicates an insignificant relationship between body mass index of women and number of children among women ($p > 0.05$). With other reproduction practices, body mass index was positive and significantly associated with age of pregnancy, number of pregnancies, interval between births of two children, received antenatal care and place of delivery ($p < 0.01$). Further, study also indicates the significant relationship between anemia and number of children, age of pregnancy, interval between births of two pregnancies, place of delivery, number of children, received antenatal care ($p < 0.01$). Gautam V. *et al.* (2002) depicts that when, first pregnancy was delayed upto 18 years or later, the pregnant women were more often normal or had mild anaemia, however, these trends were statistically not significant. Moreover, study indicates different observation from above findings, regarding prevalence of anaemia and birth interval and found an insignificant relationship between them. Further, study also indicates the significant relationship between common illnesses and number of children, number of pregnancies, received antenatal care, interval between birth of two children, place of delivery ($p < 0.01$) while common illnesses was found insignificant with age of pregnancy ($p > 0.05$). Further, study also indicates a significant relationship between menstrual problems and number of children, number of pregnancies, birth interval ($p < 0.01$), place of delivery ($p < 0.05$) while menstrual problems were insignificant with age of pregnancy and received antenatal care ($p > 0.05$). Study observes a significant correlation between RTI and number of children, women's age of first pregnancy, number of pregnancies, received antenatal care ($p < 0.01$). Similarly, association between higher fertility with higher incidence of RTIs/ STIs was also observed by Gulati S.C., (2003). On the other hand, woman having no children also had the highest prevalence rate of RTIs (Kanitkar *et al.*

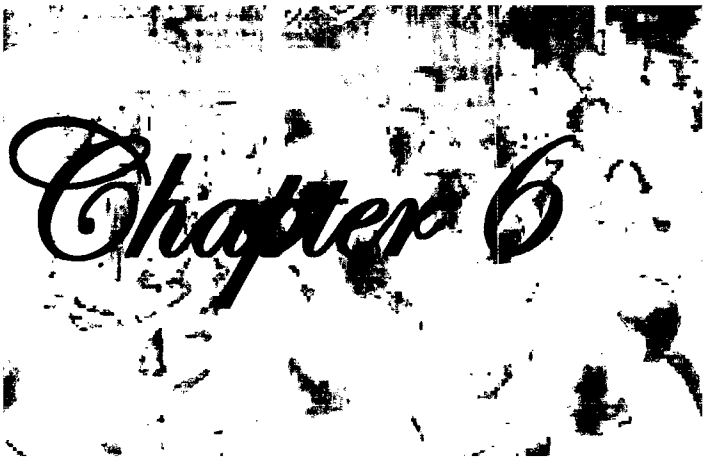
2004). While, RTI was insignificant with birth interval, place of delivery ($p > 0.05$). In contrast, indicating a significant association between place of delivery and RTI, study by Kanitkar *et al.* 2004 observed that home delivery was the greatest risk factor associated with RTI symptoms and delivery in private hospitals had minimum risk. Another study by Gulati S.C. and Sharma S. (2003) also revealed that institutional deliveries had significant and inhibitive effect on the incidence of RTIs.

Present investigation reveals significant association between body mass index and use of contraception, sharing problem regarding contraception ($p < 0.01$). Significant association was also found between anaemia and use of contraception, sharing problem regarding contraception ($p < 0.01$) among women. Common illnesses were insignificant with use of contraception, sharing problem regarding contraception ($p > 0.05$). Menstrual problems were also insignificantly associated with use of contraception, sharing problem regarding contraception ($p > 0.05$) among women. Reproductive tract infection was insignificantly associated with use of contraception, sharing problem regarding contraception ($p > 0.05$) among women. In contrary, Rathore M *et al.* (2003) indicated significant relationship between reproductive morbidities and use of contraception. But the prevalence of reproductive tract infection among women using oral contraceptives and condoms was less as compared to those who were using an intrauterine device and tubectomies. Women who were not using any contraceptive, most of them were suffering from RTI (Sharma S. Gupta B. P. 2009).

Study also indicates significant relationship between BMI and practice of abortions, number of abortions ($p < 0.01$), place of abortion ($p < 0.05$) while anaemia and common illnesses were insignificantly associated with practice of abortions, number of abortions,

place of abortion ($p > 0.05$). Significant relationship was found between menstrual problems and practice of abortions ($p < 0.01$) while menstrual problems were insignificant with number of abortions, place of abortion ($p > 0.05$). Further, RTI was significantly associated with practice of abortions, number of abortions, place of abortion ($p < 0.05$). Kanitkar *et al.* (2004) also observed that induced abortions were significantly associated with RTI prevalence.

Above discussion reveals that rural women in Jawan Block have incomplete knowledge regarding gender health inequity. Unhygienic practices during menstruation, early marriage, unsafe reproductive practices, no use contraception and unsafe abortion are still practicing due to misconception and traditional norms. These practices are affecting women's health as anemia, common illnesses and menstrual problems and RTI prevalent among these women. IEC have a significant impact to improve practices among rural women of Jawan Block.


Chapter 6

SUMMARY AND CONCLUSIONS

Present chapter summarizes the study. It draws conclusion and provides suggestions. This chapter includes the following heads:

6.1 Summary

6.2 Conclusions

6.3 Suggestions

6.1 Summary

The study entitled "Assessment of Awareness and Impact Study of IEC Aids regarding Gender Health Inequity among Women of Jawan Block, Aligarh, U.P." was conducted with the objectives to assess the awareness regarding gender health inequity among rural women and to ascertain the impact of Information Education Communication on rural women. For this purpose, a sample of 450 adult married women and of age 18 – 40 years was targeted from selected villages (Chherat, Sumera, Naguala, Kasimpur, Jawan Sikandarpur, Jawan Vajidpur, Faridpur, Chanduakha) of Jawan Block using proportionate stratified systematic sampling design. Information regarding demography, gender health inequity and health status of rural women was collected through a self prepared interview schedule, observation, anthropometric measurements, biochemical examination, clinical history. IEC aids like flash cards, flipbooks, posters, story cards and innovative games in personal approach and group approach were used for creating awareness among rural women. Data was collected in three stages first - pre IEC period, second - IEC period, third - post IEC period. Response rate was 88%. After collecting data, coding, editing and compilation was done. The analysis was made by

using statistical package for social sciences (SPSS) version 17. Different statistical tools i.e. frequency and percentages, wilcox signed rank test, spearman correlation (r_s) were employed to systematically present the information and to develop the relationship among the various variables. Variable wise results are presented in the succeeding sections –

6.1.1 Demographic characteristics of rural women

- Majority of the women (32.1%) were in the age group of 18 to 24 years.
- Higher proportion (41.4%) of women had never been to school as compared to 10.4% of the husbands who had never attended any school. Women who attended school, majority of them (19.2%) had completed 12 or more years of education.
- Majority of women (60.9%) were not involved in any kind of occupation. Majority of women's husbands (23%) were self employed.
- Majority of women (62.4%) belonged to nuclear family.
- Majority of women (95.7%) belonged to Hindu community. Majority of women (48.5%) were from schedule caste. Majority of women (52.5%) belonged to poor class.

6.1.2 Gender heath inequities among rural women and impact of IEC

A. Menstruation

- Before IEC, majority of women (66.4%) did not know about menstruation and other had misconception. After IEC, majority of rural women (76.8 %) were

aware about physiological process of menstruation. These improvements were statistically significant ($p < 0.01$).

- Before IEC, majority of women (80.1%) bathed daily. After IEC, number of women was increased (92.9%) who bathed daily. These improvements were statistically significant ($p < 0.01$).

- During monthly menstrual cycle, before IEC, most of the rural women (81.3%) used old cloth without washing. After IEC most of the rural women (73.5%) used old cloth after washing during monthly menstrual cycle. These improvements were statistically significant ($p < 0.01$).

- Before IEC, majority of women (90.9%) changed daily menstrual absorbent. After IEC, more women (98.7%) started to change daily absorbent and did not reuse it. In this case, no significant improvements ($p > 0.01$) were observed.

- Before IEC, majority of women (35.9%) were having restrictions on eating and in performing daily household chores (15.9%). After IEC majority (79.3%) of women had no restriction among them. These improvements were found to be significant ($p < 0.01$).

B. Marriage

- Majority of women (42.9%) got married between ages 15 to 17.

- Before IEC, higher proportions (35.6%) of women were aware about right age of marriage. After IEC majority of women (88.6%) were aware about right age of marriage. These improvements were statistically significant ($p < 0.01$).

- Majority of women (48.7%) were not in favour of early marriage. After IEC, number of women was increased (90.2%) who were not in favour of early marriage. These improvements were statistically significant ($p < 0.01$).

- Before IEC, majority of women (69.9%) were not aware about the effect of early marriage. After IEC, most of the women became aware about stop development (20.2%), weakness (13.9%), early pregnancy death and disability (29.8%) and RTI/STD (1.3%). These improvements were statistically significant ($p < 0.01$).

C. *Pregnancy*

- Before IEC, 37.9% of women considered two to be the ideal number of children. After IEC, majority of women (86.6%) were in favour of two children. These improvements were statistically significant ($p < 0.01$)

- Before IEC, majority of women (46.2%) considered one boy and one girl as ideal gender composition of their children. After IEC, number of women (60.9%) was increased who considered one boy and one girl both as ideal gender composition of their children. These improvements were statistically significant ($p < 0.01$).

- Higher proportion of women (36.1%) had more than three children.

- Before IEC, majority of women (85.9%) did not know about the right age of pregnancy. After IEC, most of the women (83.6%) considered < 22 as right age of pregnancy. These improvements ($p < 0.01$) were statistically significant.

- Majority of women's (31.3%) first pregnancy occurred before the age of eighteen. and majority of women (31.3%) had one pregnancy.

- Among majority of women (51.8%) births of two children occurred within less than 18 months and among.

- Before IEC, majority of women (61.1%) were not aware regarding the interval between births of two children. After IEC, majority of women (66.4%) were aware about > 36 months of interval between births of two children. These improvements were statistically significant ($p < 0.01$).

- Majority of women (53.8%) reported that their last pregnancy was wanted.

- Majority of women (53.8%) were aware about bad consequences of closed birth interval. After IEC, more women (79.8%) became aware about it. These improvements were statistically significant ($p < 0.01$).

- Before IEC, only 2.8% of women had complete information, 56.6% of women had incomplete information, 40.7% of women were not aware about antenatal care. After IEC, 28.8% of women had complete information and 66.9% of women had incomplete information about it. These improvements were statistically significant ($p < 0.01$).

- Majority of women (75.5%) got incomplete antenatal care for the recent live birth of their children.

- Most of the women's (56.6%) deliveries were done at home. by local birth attendant of the village.

- Before IEC, majority of women (46.7%) favoured home for delivery while remaining women were aware to avail hospital delivery. After IEC, only 4% of

women favoured home for delivery, most of the women became aware of government hospital (56.3%), private hospital (10.4%), CHC (4%) for delivery.

D. Contraception

- Before IEC, majority of women (63.1%) were aware about contraception. After IEC, 97.5% of rural women became aware about contraception. These improvements were statistically significant ($p < 0.01$).

- Majority of women (59.3%) were not using any contraceptive before IEC. After IEC, majority of rural women started to use contraceptives like female sterilization (13.6%), male sterilization (2.8%), contraceptive pills (6.3%), IUD (4.0%), injectable (2.0%), condom (27.3%), Rhythm (1.8%). These improvements were statistically significant ($p < 0.01$).

- Reasons for not using contraception among women were husbands' disapproval (9.8%), do not have need (26.3%), not have information (21%), non availability (1.5%) and feel shame (0.8%).

- Before IEC, majority of women (41.7%) and their husbands both took decision regarding use of contraceptives. 65.9% of women and their husbands both took decision. These improvements were statistically significant ($p < 0.01$).

- Side effects of contraception among women were irregular menstruation (10.9%) allergy (2.8%), amenorrhea (1%), lower abdomen pain (1%) and weakness (0.8%).

- Before IEC, 2.3 % of women were sharing their problems related to contraception with husbands, after IEC 15.9% of women were sharing their problems related to contraception. These improvements were statistically significant ($p < 0.01$).

E. Abortions

- Before IEC, 11.1% of women favoured abortions while 35.1% of women were against it. After IEC 3.5% of the women favoured abortion, 75.3% of women were not in favour of it. These improvements were statistically significant ($p < 0.01$).

- Majority of women (78.8%) experienced none of the abortion, 13.4% of women of all interviewed women had experienced one abortion over their lifetime, 7.8% of women had experienced two abortions.

- Main reason for seeking abortion among rural women was 'don't need any more daughter' (10.6%), 'don't need any more child' (9.8%), doctor's advice (.8%).

- Considerable proportion of women (14.5%) had sought pregnancy termination form private hospitals.

- Health problem faced by women who practiced abortion over a life time, among them, 7.1 % of women reported incomplete abortion followed by severe bleeding (2.5%), chronic pain (2.0%) and infertility (0.5%).

- Before IEC, majority of women (59.8%) were not aware about consequences of abortions on women's health. After IEC, only 15.7% of women were not aware

about it. Remaining women were aware. These improvements were statistically significant ($p < 0.01$).

6.1.3 Association between demographic characteristics and gender health inequity among rural women

- Significant association was found between age of women and pre IEC use of absorbent material, restrictions during menstruation, number of children, birth interval, awareness regarding antenatal care, awareness of contraception, use of contraception, sharing problem with husband at $p < 0.01$ and awareness regarding menstruation, awareness regarding right age of marriage, gender preference, place of delivery, opinion on abortion at $p < 0.05$. Remaining variables were insignificant with age.

- Significant association was found between education of women and pre IEC awareness regarding menstruation, use of absorbent material, change of absorbents, awareness regarding right age of marriage, opinion on early marriage, effect of early marriage, number of children, age of pregnancy, awareness regarding birth interval, awareness regarding antenatal care, place of delivery, opinion on abortion and consequences of abortions at $p < 0.01$, consequences of closed birth interval, restrictions during menstruation, sharing problem with husband at $p < 0.05$. Remaining variables were insignificant with education.

- Significant association was found between occupation of women and pre IEC use of absorbent material, awareness regarding right age of marriage, gender preference, birth interval, use of contraception at $p < 0.01$, awareness regarding

menstruation, number of children in family, place of delivery, sharing problems with husband at $p < 0.05$. Remaining variables were insignificant with occupation.

- Significant association was found between religion of women and pre IEC awareness regarding menstruation, bathing during menstruation, use of absorbent material, restrictions during menstruation, effect of early marriage, birth interval and consequences of closed birth interval at $p < 0.01$, gender preference at $p < 0.05$. Remaining variables were insignificant with religion.

- Significant association was found between socio economic status of women and pre IEC awareness regarding menstruation, use of absorbent material, change of absorbents during menstruation, awareness regarding right age of marriage, opinion on early marriage, effect of early marriage, number of children, age of pregnancy, birth interval, awareness regarding antenatal care, place of delivery, consequences of abortions at $p < 0.01$, consequences of closed birth interval, awareness regarding contraception, bathing during menstruation, sharing problem at $p < 0.05$. Remaining variables were insignificant with socio economic status.

- Significant association was found between age of rural women and post IEC use of absorbent material, change of absorbents, restrictions during menstruation, opinion on early marriage, number of children, gender preferences of child, consequences of closed birth interval, use of contraception, sharing problem with husband at $p < 0.01$. Remaining variables were insignificant with age.

- Significant association was found between education of rural women and post

IEC use of absorbent material, awareness on effect of early marriage, number of children, gender preferences of child, consequences of closed birth interval, antenatal care, use of contraception at $p < 0.01$, change of absorbents, place of delivery, bathing during menstruation, opinion on abortion at $p < 0.05$. While remaining variables were insignificant with education.

- Significant association was found between occupation and post IEC restrictions during menstruation, antenatal care, decision regarding contraception at $p < 0.05$, use of absorbent material, awareness on effect of early marriage, number of children, gender preferences of child, birth interval, use of contraception, sharing problem at $p < 0.01$. Remaining variables were insignificant with occupation.

- Significant association was found between religion of rural women and post IEC bathing at time of menstruation, use of absorbent material, awareness on age of marriage, awareness on effect of early marriage, age of pregnancy, use of contraception at $p < 0.01$, restrictions during menstruation, place of delivery, sharing problem with husband, opinion on abortion at $p < 0.05$. Remaining variables were insignificant with religion.

- Significant association was found between socio economic status of rural women and post IEC awareness regarding use of absorbent material, awareness on effect of early marriage, number of children, gender preferences, birth interval, antenatal care, awareness of contraception, use of contraception, decision regarding contraception at $p < 0.01$, age of pregnancy, sharing problem at $p < 0.05$. Remaining variables were insignificant with socio economic status.

6.1.4 Health status of rural women and its association with gender health inequity practices

A. Health Status of rural women

- Majority of rural women (67.2%) possessed normal BMI (18.5 – 24.99 kg/m^2) and majority of rural women (56.3%) had moderate anaemia (7.0 - 9.9 g/dl).
- Rural women were suffering from pain in joints and back ach followed by constipation (8.6%), diarrhoea (6.8%), fever (4.3%) and tuberculosis (2.5%).
- Rural women were suffering from menstrual problems like oligomenorrhoea (21.2%), menorrhagia (11.1%), delayed cycle (8.3%), polymenorrhea (2.0%) and genital infection (2.0%).
- Higher proportions of rural women (43.7%) were suffering from lower RTI.

B. Association between health status of rural women and gender health inequity practices

- Significant association was found between body mass index of rural women and bathing, use of absorbents during menstruation, age of marriage, age of pregnancy, number of pregnancies, birth interval, received antenatal care, place of delivery, use of contraceptives, sharing problems, practice and number of abortion at $p < 0.01$, place of abortion at $p < 0.05$. While remaining variables were insignificant with body mass index of women.

- Significant association was found between anaemia among women and change of absorbents at $p < 0.05$, number of children, age of pregnancy, number of pregnancies, birth interval, received antenatal care, place of delivery, use of contraceptives, sharing problem at $p < 0.01$. Remaining variables were insignificant with anaemia among women.

- Significant association was found between common illnesses among women and change of absorbents at $p < 0.05$, number of children and pregnancies, birth interval, received antenatal care, place of delivery with $p < 0.01$. Remaining variables were insignificant with common illnesses among women.

- Significant association was found between menstrual problems among rural women and place of delivery at $p < 0.05$, restrictions during menstruation, birth interval, number of pregnancies, number of children, practice of abortion at $p < 0.01$. Remaining variables were insignificant with menstrual problems.

- Significant association was found between RTI among rural women and use of absorbents during menstruation, age of marriage, number of children, age of pregnancy, number of pregnancies, received antenatal care at $p < 0.01$, bathing at time of menstruation, practice, number and place of abortion at $p < 0.05$. Remaining variables were insignificant with RTI.

6.2 Conclusions

Women in rural areas of Jawan Block still hold traditional beliefs and misconception regarding menstruation and most of them do not have proper knowledge regarding menstrual management therefore follow some unhygienic practices. However, bathing

practice was satisfactory among women but practices regarding use of absorbent material were unsatisfactory before IEC. Self imposed restrictions were also found among rural women. Study also found the significant effect of IEC (Information Education Communication) on rural women regarding menstruation among women. After conducting IEC, more women became aware regarding physiology of menstruation, more women started to bath daily and restrictions were decreased among women. Regarding, use of absorbent women started to wash and dry the cloth before using.

Further, early marriage was common among rural women of Jawan Block. Most of women were married early but some of these women did not favour early marriage. Few women favored early marriage due to traditional beliefs and custom of society. Significant numbers of rural women were not aware about right age of marriage and the effect of early marriage on health of women. Study also observed that IEC (Information Education Communication) had significant effect on rural women in increasing awareness regarding marriage issues. After conducting IEC, more women became aware regarding age of marriage for girl, more women were against early marriage and women became aware regarding ill effect of early marriage on women.

Moreover, unsafe reproductive behaviour was also observed among rural women of Jawan Block. Most of rural women desired two and three or more children. Son preference was still strong among rural women, however women desired for daughters also but not like son. Rural women were not aware regarding the birth interval between two children and right age of pregnancy. The attitude and knowledge regarding reproductive issues were reflected in their practices. Among rural women, most of the pregnancies occurred before reaching at right age of pregnancy and significant number of

women had more than three pregnancies at short interval between two births. Study also showed incomplete awareness regarding antenatal care among rural women. However, most of the rural women took antenatal care, but it was incomplete. The study concluded that home and unsafe delivery was still widely prevalent in the rural areas of Jawan Block. Women believed more on *'Dai'* (untrained women in village who conduct delivery) as compared to doctors especially government staff working in CHC or government hospital. In increasing awareness regarding reproductive behaviour, IEC (Information Education Communication) had significant effect on rural women of Jawan block. After conducting IEC, more women became aware regarding age at first pregnancy, number of children, birth interval, complete antenatal care and availing hospital facility for delivery. Women became aware regarding ill effect of closed birth interval on women.

Further, rural women of Jawan Block had incomplete awareness regarding contraception and significant numbers of women were not using contraception. Husbands' disapproval was one of a main reason for not using contraception. Using contraception was the responsibility of women but she could not take decision alone regarding use of it. Women had side effects of contraceptives but most of the women did not share their problems with their husbands. Study also observed that IEC (Information Education Communication) had significant effect on rural women in increasing awareness regarding contraception. After conducting IEC, more women became aware about contraception and started to use contraceptives. More women alone or with their husband took decision regarding use of contraception. If women had problems with use of contraceptives they shared their problems with their husbands.

No use of contraception leads to abortion. But rural women in Jawan Block, rarely experienced abortion and did not favour it. Aborting girl child and limiting family size were main reasons among women who experienced abortion. Even, among these women, most of them were not accessing safe abortion. Use of hard material in vagina was quite common among rural women to abort their child. They faced post abortion morbidity also. Further, most of the women were not aware regarding effect abortion on health of women. Study also found the significant effect of IEC (Information Education Communication) on rural women regarding abortion among women. After implementing IEC, more women became against abortion and its ill effect on health of women.

Findings suggest that the awareness building component of the IEC succeeded in reaching a large number of women, as well as in reducing gender health inequity among women.

Study explored that demographic characteristics were significantly associated with some categories of gender health inequity among women and in other categories of gender health inequity, these characteristics were significant. Likewise these characteristics also had significant association with increase in awareness in some categories of gender health inequity. Moreover, study pointed out that anaemia was highly prevalent among rural women. Women were also suffering from menstrual problems, common illnesses and lower RTI. These problems were associated with gender health inequity. One or more gender health inequity was significantly associated with one or more health problem.

Eventually, study concluded that rural women were not completely aware regarding gender health inequity. IEC aids flip book, flash cards, posters, puppets, story cards,

games were capable to provide knowledge and overcome the knowledge/practice gap. But, only when, integration of gender needs to be done from the planning stage - *Firstly,* identify and understand the issue of gender health inequity, *secondly* identification the socio – cultural reasons for this, *third* planning of actions. In this context and short duration of implementation; the changes achieved by the IEC were promising.

6.3 Suggestions

Keeping in view the findings of study following steps are being proposed for execution for making women's life free from gender health inequity -

- Gynaecologists working in this region should utilize the opportunities of clinical consultations to discuss gender health issues with their female patients and educate them.
- Women's access to safe delivery should be provided at the PHC level.
- Husband's attitude is one of the determinants of achieving gender health equity; therefore it is needed to conduct awareness among husbands in order to bring change in their point of view regarding the issue.
- Television was the most commonly used mass media in the area under study therefore this media can be used as an agent of change by introducing new television shows like 'Satyamev Jayate', 'Kyuki.... Jeena Isi Ka Naam Hai' (Because... That's What Life Is) highlighting women's issues, especially for promoting awareness among women about gender disparity, motivating them for organizing themselves.

- Women feel insecurity, uncertainty and vulnerability within home and outside home. However, government already made many legislations regarding women but there is the need of strict implementation of these laws. In this connection local level committees should be made effective for providing women supportive environment.

- Keeping the socio - cultural status of women and existing governmental policies in view, in order to curb the gender health inequity, programme planning should be based on three 'E's':

  Education: To realize their potential in a way that fosters a right based environment through interventions.

  Economic Empowerment: To help in skill formation for increasing confidence of women.

  Entitlement: To go into the structure of ownership. It may be at self, family, community and policy level.

Lastly, dedication and commitment at local level will certainly prove helpful in bringing positive changes in the women's lives which is essential for economic growth and sustainable development of country. Since we all have the same vision and mission of a happy and healthy society, it is necessary to come together to protect our women, to love her, to give her freedom, affection, nourishing food and to welcome her to save mankind.

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Annexure

ANNEXURE I

A. Proposed social classification for the month of December 2004

Social Class		Per Capita monthly income limits (Rs.)	
		B.G. Prasad's classification	Modified proposed
		Classification for the month of December 2004	
I	Upper high	100 and above	1000 and above
II	High	50 – 99	5000 - 9999
III	Upper middle	30 – 49	3000 - 4999
IV	Lower middle	15 – 29	1500 -2999
V	Poor	Below 15	500 -1499
VI	Very poor and below poverty line (BPL)	-	Below 500

Sourse: Agrawal A (2008), Social classification: The need to update in the present scenario

B. BMI classification for adults

Classification	BMI(kg/m^2)
	Principal cut-off points
Underweight	<18.50
Normal range	18.50 - 24.99
Overweight	≥25.00
Obese	≥30.00

Source: WHO, 2004, Global database on body mass index

C. Classification of anaemia for adult non pregnant women

Classification	Haemoglobin level (g/dl)
	Principal cut-off points
Severe	<7.0 g/dl
Moderate	7.0-9.9 g/dl
Mild	10.0-11.9 g/dl

Source: NFHS - III, 2005 - 2006,

D. *Sahli's method for haemoglobin estimation*

The procedure was explained to participants and then finger tip was cleaned with spirit, dried and clean puncture made with a sterilized disposable needle. First drop of the free flowing blood was wiped off and second drop was used for hemoglobin estimation. An accurate volume (20 µl) of blood was drawn into the Hb pipette and immediately delivered to Hb tube containing 0.2 ml of N/10 HCl. After 10 minutes of waiting period, distilled water was added to the Hb pipette till the color matched with standard color coded disc. The reading was noted to the nearest of 0.2 gm%.

E. Conditions for assessing menstrual problems and RTI

Problems	Conditions
Menstrual Problems	
Dysmenorrhoea	Painful menstruation, both congestive and spasmodic type included
Menorrhagia	Prolonged duration of more than five days with excessive bleeding with or without history of passing clots.
Polymenorrhea	Frequent menses less than 21 days duration, either excessive or not
Oligomenorrhoea	Duration of bleeding less than three days with scanty period of spotting
Delayed cycles	More than 45 days of cycles
Reproductive tract Infection	
Upper RTI	Pain in iliac fossa or lower abdomen with associated vaginal discharge and with or without fever
Lower RTI	Vaginal discharge with associated itching or irritation, white or coloured discharge with or without foul odour

Source: Sowmini, C.V., Sankara, S. P. (2004). Reproductive Morbidity among Contraceptive Users: Need for Quality Services.

ANNEXURE II

Representation of Sampling

Stage I : Proportionate sample of Gram Panchayat

	Jawan Block (78 Gram Panchayats) n = 8 gram panchayats			
	Accessible Gram Panchayat (38 Gram panchayat)		Less Accessible Gram Panchayat (40 Gram Panchayats)	
	Availability of PHC at 0-2 km	Availability of PHC above 2 km	Availability of PHC at 0-2 km	Availability of PHC above 2 km
	(28 gram panchayats)	(10 gram panchayats)	(19 gram panchayats)	(21 gram panchayats)
Proportion	3	1	2	2

Stage II : Sample of women from each gram panchayat

Strata	No. of gram panchayat	Name of gram panchayat	No. of women in each gram panchayat	Sampled women Respondents	Response rate
I	3	Jawan	702	100	88
		Sikandarpur			
		Chherat	168	24	21
		Naguala	554	79	69
II	1	Chandaukha	135	19	17
II	2	Sumera	584	83	73
		Kasimpur	283	40	35
IV	2	Faridpur	277	39	35
		Jawan	468	66	58
		Vajidpur			
		Total	3171	450	396

ANNEXURE III A

Pre - Interview Schedule (Hindi)

Personal Profile

1. गॉव का नाम
2. नाम
3. आयु
4. शिक्षा — प्रायमरी / जूनियरहाईस्कूल / हाईस्कूल / इण्टर / अन्य / थोडा पढना – लिखना हिसाब / अशिक्षित
5. व्यवसाय

Family Profile

6. पति का नाम
7. पति का व्यवसाय
8. पति की शिक्षा — प्रायमरी / जूनियरहाईस्कूल / हाईस्कूल / इण्टर / अन्य / थोडा पढना – लिखना हिसाब / अशिक्षित
9. पति की आय
10. परिवार का आकार — एकांकी / संयुक्त
11. आप किस धर्म व जाति से सम्बन्ध रखती हैं ?

SECTION 1: Menstruation

12. माहवारी क्या है ?
13. माहवारी के समय आप कब नहाती हैं
    पहले दिन / दूसरे दिन / तीसरे दिन / रोज
14. माहवारी के समय पैड में आप क्या प्रयोग करती हैं?
    पुराना कपडा धोकर / पुराना कपडा बिना धोये / नया कपडा / स्पेशल पैड / सभी

15. किस तरह प्रयोग करती हैं?
एक मासिक धर्म में एक / रोज बदलती हैं / स्थिती पर निर्भर करता / अन्य

16. क्या माहवारी के समय आप पर कोई प्रतिबन्ध होता है जैसे –
घर का काम करने पर / रसोई में जाने का / खान–पान पर / दूसरों से मिलने पर / अन्य

SECTION 2 : Marriage

17. आपका विवाह किस उम्र में हुआ था?

18. आप जानती हैं कि लडकी विवाह की सही उम्र क्या है ?

19. चौदह से सत्रह साल की उम्र में लडकी का विवाह करना सही है या गलत? स्पष्ट करें

20. क्या आप जानती हैं कि लडकी का विवाह कम उम्र से उसकी सेहत पर क्या असर पडता है?

SECTION 3: Reproduction

21. आपकी राय में एक परिवार में कितने बच्चे होने चाहिए?

22. आप कितने बच्चे चाहती थी ?
बेटा बेटी
या लिगं से कोई फर्क नहीं था

23. आपके कितने बच्चे हैं?

24. इनके जन्म के बीच अन्तराल कितना था ?

25. आपकी राय में कितना होना चाहिये ?

26. क्या आप जानती हैं पहली गर्भावस्था की सही उम्र क्या है?

27. आप पहली बार कब गर्भवती हुयी थी? आप कितनी बार गर्भवती हुयी हैं ?

28. जब आप गर्भवती हुयी तो क्या तब आप गर्भवती होना चाहती थी ? कौन सी गर्भावस्था?
हाँ / नहीं

29. आप जानती हैं कि जल्दी–2कई बार गर्भवती होने से स्वास्थ्य पर कैसा असर पडताहै?
अच्छा / बुरा

30. क्या आप गर्भावस्था में होने वाली जाँच व टीकाकरण के बारें में जानती हैं ?

हाँ / नहीं

31. क्या आपने गर्भावस्था में डॉक्टरी जाँच करायी थीं हाँ / नहीं

32. अगर हाँ तो, जाँच के समय क्या यह सब हुआ था ?
   i वजन नापा गया
   ii ब्लड प्रेशर नापा गया
   iii खून का परीक्षण हुआ
   iv Abdomen का परीक्षण हुआ
   v अस्पताल/स्वास्थ्य केन्द्र में प्रसव की सलाह दी
   vi टिटनेस का इंजेक्शन लगाया
   vii आयरन/फोलिक एसिड/ विटामिनकी गोलियाँ दीं

33. आपका प्रसव कहाँ हुआ था?
घर / सरकारी अस्पताल/ जवाँ सामुदायिक केन्द्र / ए एन एम केन्द्र / निजी अस्पताल

34. प्रसव के लिए सही जगह क्या हैं?
घर / सरकारी अस्पताल/ जवाँ सामुदायिक केन्द्र / ए एन एम केन्द्र / निजी अस्पताल

SECTION 4 : Contraception

35. क्या आप परिवार नियोजन के बारें में जानती हैं ? हाँ / नहीं

36. क्या आप परिवार नियोजन करती हैं ? अगर हाँ, तो क्या ?

37. अगर नहीं, तो क्यों?

38. और यह निर्णय किसका था?

39. क्या इससे आपको परेशानी होती हैं ? हाँ / नहीं

अगर हाँ, तो क्या ?

40. अगर हाँ, तो क्या आप इस बारे में अपने से पति से बात करती हैं ? हाँ / नहीं

SECTION 5 : Abortion

41. आपकी राय में गर्भपात करवाना उचित है ? हाँ / नहीं

42. क्या आपने कभी गर्भपात करवाया हैं? हाँ / नहीं

अगर हाँ, तो कितनी बार

43. अगर हाँ, तो क्यो ?
लङकी गर्भ में होने पर / डाक्टर की सलाह पर / अन्य कारण

44. आपने गर्भपात कहाँ करवाया था?

45. क्या गर्भपात के बाद आपको कोई स्वास्थ्य समस्या हुयी? हाँ / नहीं

अगर हाँ, तो क्या

46. क्या आप जानती गर्भपात से स्वास्थ्य पर क्या असर पडता है?

Post - Interview Schedule

Personal Profile

1. गॉव का नाम

2. नाम

3. पति का नाम

SECTION 1: Menstruation

4. माहवारी क्या है ?

5. माहवारी के समय आप कब नहाती हैं
   पहले दिन / दूसरे दिन / तीसरे दिन / रोज

6. माहवारी के समय पैड में आप क्या प्रयोग करती हैं?
   पुराना कपडा धोकर / पुराना कपडा बिना धोये / नया कपडा / स्पेशल पैड / सभी

7. किस तरह प्रयोग करती हैं?
   एक मासिक धर्म में एक / रोज बदलती हैं / स्थिती पर निर्भर करता / अन्य

8. क्या माहवारी के समय आप पर कोई प्रतिबन्ध होता है जैसे –
   घर का काम करने पर / रसोई में जाने का / खान–पान पर / दूसरों से मिलने पर / अन्य

SECTION 2 : Marriage

9. आप जानती हैं कि लडकी विवाह की सही उम्र क्या है ?

10. चौदह से सत्रह साल की उम्र में लडकी का विवाह करना सही है या गलत? स्पष्ट करें

11. क्या आप जानती हैं कि लडकी का विवाह कम उम्र से उसकी सेहत पर क्या असर पडता है?

SECTION 3: Reproduction

12. आपकी राय में एक परिवार में कितने बच्चे होने चाहिए?
    बेटा बेटी
    या लिगं से कोई फर्क नहीं था

13. आपकी राय में बच्चो के जन्म के बीच अन्तराल कितना होना चाहिये ?

14. क्या आप जानती हैं पहली गर्भावस्था की सही उम्र क्या है?

15. आप जानती हैं कि जल्दी–2कई बार गर्भवती होने से स्वास्थ्य पर कैसा असर पडताहै?
    अच्छा / बुरा

16. क्या आप गर्भावस्था में होने वाली जाँच व टीकाकरण के बारें मे जानती हैं ?
    हाँ / नहीं

17. प्रसव के लिए सही जगह क्या हैं?
    घर / सरकारी अस्पताल/ जवाँ सामुदायिक केन्द्र / ए एन एम केन्द्र / निजी अस्पताल

SECTION 4 : Contraception

18. क्या आप परिवार नियोजन के बारें मे जानती हैं ? हाँ / नहीं

19. क्या आप परिवार नियोजन करती हैं ? अगर हाँ, तो क्या ?

20. और यह निर्णय किसका था?

21. अगर आपको परेशानी होती हैं तो क्या आप इस बारे में अपने से पति से बात करती हैं ?
    हाँ / नहीं

SECTION 5 : Abortion

22. आपकी राय में गर्भपात करवाना उचित है ? हाँ / नहीं

23. क्या आप जानती बार बार और असुरक्षित गर्भपात से स्वास्थ्य पर क्या असर पडता है?

SECTION 6 : Health Examination

वजन (kg): लम्बाई(cm):

हीमोग्लोबिन :

Women Common illnesses:

निमोनिया / दस्त / कब्ज / टी बी/ कमर दर्द / जोडो में दर्द / अन्य

Menstrual problems:

क्या माहवारी के समय कोई स्वास्थ्य समस्या होती है ?

क्या सफेद पानी की समस्या है ?

अन्य समस्या ?

ANNEXURE III B

Pre - Interview Schedule (English)

Personal Profile

1. Name of Village
2. Name
3. Age
4. Education — No Education / <5 / 5 – 7 / 8 – 9 / 10 – 11 /12 or more
5. Occupation

Family Profile

6. Husband's name
7. Occupation
8. Education — No Education / <5 / 5 – 7 / 8 – 9 / 10 – 11 /12 or more
9. Income
10. Type of family — Nuclear / Joint
11. What is your caste and religion?

SECTION 1: Menstruation among women

12. What is menstruation?
13. At which day do you bath?
    First day/ Second day / Third day / daily
14. Which absorbent material do you use?
    Old rejected cloth after wash / Old rejected cloth without wash / New cloth / Sanitary pad
15. How many times do you change absorbent?
    Daily / one in one menses/ According to condition
16. Do you have any restriction during menses?
    Eating/ go to kitchen/ household chores / meeting others

SECTION 2: Marriage

17. At which age did you marry?

18. Do you know about the right age of marriage for girls?

19. Is it right to marry girls at the age of 14 – 17 years? specify.

20. Do you know the effect of early marriage on women's health?

SECTION 3: Reproduction

21. In your opinion, what is the ideal number of children for a family?

22. How many children did you want?
Son - Daughter –
Sex does not matter

23. How many children do you have?

24. How much interval was between births of two children?

25. In your opinion, how much interval should be between births of two children?

26. Do you know the right age of first pregnancy?

27. At which age, your first pregnancy occurred? How many times you became pregnant?

28. When you become pregnant, do you want to be pregnant?

29. Do you know the ill effect of closed pregnancy on health?

30. Do you know about antenatal care? Yes / No

31. Do you access antenatal care for the last pregnancy?

32. At the time of ante natal visits, following steps were done –

Blood test / Abdomen check / BP check / Advice for institutional delivery / TT / IFA tablets

33. Where did you go for your last delivery?

Home/Government hospital /Private hospital/ ANM center/ CHC

34. In your opinion, where should a woman go for her delivery?

Home/Government hospital /Private hospital/ ANM center/ CHC

SECTION 4 : Contraception

35. Do you know about contraception? Yes / No

36. Do you use contraception Yes / No

If yes then what?

37. If not then why?

38. Who took the decision of using contraception?

39. Do you have any problem of using it? Yes / No

If Yes, then what?

40. Did you share your problem with your husband?

SECTION 5 : Abortion

41. In your opinion, abortion is right? Yes / No

42. Do you experience abortion in your lifetime? Yes / No

If yes, how many times?

43. Why?

Averting female fetus /Doctor's advice/Other

44. Where did you go for abortion?

45. Do you have any problem after abortion ? Yes / No

If yes, then what?

46. Do you know the effect of abortion on health?

Post - Interview Schedule (English)

Personal Profile

1. Name of Village
2. Name
3. Husband's name

SECTION 1: Menstruation

4. What is menstruation?
5. At which day do you bath?

   First day/ Second day / Third day / daily
6. Which absorbent material do you use?

   Old rejected cloth after wash / Old rejected cloth without wash / New cloth / Sanitary pad
7. How many times do you change absorbent?

   Daily / one in one menses/ According to condition
8. Do you have any restriction during menses?

   Eating/ go to kitchen/ household chores / meeting others

SECTION 2 : Marriage

9. Do you know about the right age of marriage for girls?
10. Is it right to marry girls at the age of 14 – 17 years? specify.
11. Do you know the effect of early marriage on women's health?

SECTION 3: Reproduction

12. In your opinion, what is the ideal number of children for a family?
    Son - Daughter –
    Sex does not matter
13. In your opinion, how much interval should be between births of two children?

14. Do you know the right age of first pregnancy?

15. Do you know the ill effects of closed pregnancy on health?

16. Do you know about antenatal care? Yes / No

17. In your opinion, where should a woman go for her delivery?
Home/Government hospital /Private hospital/ ANM center/ CHC

SECTION 4 : Contraception

18. Do you know about contraception? Yes / No

19 Do you use contraception Yes / No

If yes then what?

20. Who took the decision of using contraception?

21. Did you share your problem with your husband? Yes / No

SECTION 5 : Abortion

22. In your opinion, abortion is right? Yes / No

23. Do you know the effect of abortion on health?

SECTION 6 : Health Examination

Weight (kg): Height (cm):

Haemoglobin :

Women Common illnesses:

Pneumonia / Diarrhoea / Constipation / Tuberculosis / Measles Back pain / Joint pain / Others

Do you have any problem during menstruation?

Do you have problem of white discharge from vagina?

Any other problem?

ANNEXURE IV A

Summary of scripts of IEC aids

1. **Title of the story:** लड़का ही होगा (Will be son)

   Theme of the story: Aborting female fetus and impact on health

   Characters of story: Ramkali, Ramdas, Ramu, Rameshwari, Doctor

   Summary - Hindi:
   यह कहानी रामटेकडी गाँव की रामकली की है शादी के बाद जब रामेश्वरी पहली बार गर्भवती हुयी तो उसकी सास व पति गर्भ में पल रहे बच्चे का जबरदस्ती लिंग परीक्षण कराते हैं गर्भ में लड़की होने पर गाँव के डॉक्टर से गर्भपात करवा देते हैं । जिसकी वजह से कमजोरी व बाँझपन का शिकार हो जाती है ।

   English:
   This is a story of Ramkali in the village of Ramtakdi. After marriage when Ramkali becomes pregnant first time. Her husband and mother in law take her for sex determination. Due to the girl fetus in her womb, they abort her child with the help of a doctor of village. Then, she becomes the victim of weakness and infertility.

2. **Title of the story:** Chhoti si dulhan (Little bride)

   Theme of the story: Right age of marriage and impact of early marriage on women's health

   Characters of story: Ramdulari, Meera didi (Social worker), Kishan (Ramkali's husband), Ramsati (Ramdulari's mother), Ramdas (Ramdulari's father), Rameshwari (Ramdulari's mother in law), Doctor

   Summary - Hindi:
   ये कहानी है रामटेकडी गाँव की चौदह साल की रामदुलारी की । जिसका विवाह कच्ची उम्र में पास के गांव के राम किशन कर दिया जाता है कच्ची उम्र में रामदुलारी को गर्भ ठहर जाता है। डॉक्टर के मना करने के बाबजूद रामदुलारी की सास दाई की सहायता से उसका प्रसव कराती है बच्चा और रामदुलारी दोनों मर जाते है।

   अंत में कम उम्र में विवाह के परिणाम के बारें मे पौधे की सहायता से समझाया गया –

   एक पौधे के बारें आप सभी मुझसे बेहतर जानती हैं किस तरह एक पौधे की देखभाल की जाती है। हमेशा यह ध्यान रखा जाता है कि पूरी तरह बढने से पहले पौधे पर फूल ना आये इसके लिए खास समय पर पौधे की छंटाई की जाती है। इससे पौधा हर भरा रहता है और

पूरा बढता है। पौधे की ही तरह लडकी को भी पूर्ण विकास और बढौत्तरी के बाद ही फलने का मौका दिया जाना चाहिए। मतलब 18 साल की उम्र के बाद ही शादी होनी चाहिए। 18 साल तक किशोरियाँ स्वयं बढ रही होती हैं। उससे पहले वह शारीरिक ओर मानसिक रुप से तैयार नहीं होती हैं। जल्दी शादी से किशोरियों के विकास में बाधा पडती है। अक्सर किशोरियाँ शादी के तुरंत बाद गर्भवती हो जाती हैं जिससे माँ व उसके बच्चे दोनो पर गभीर परिणाम हो सकते हैं जैसे – जन्म के समय बच्चे का कम वजन या बच्चे व माँ की जानको खतरा इसीलिए हमेशा18 साल के बाद ही बेटी की शादी करें, ताकि उसका पूर्ण विकास हो सके।

English:
This is a story of 14 years old Ramdulari of Ramtakdi village. She is married with Ramkishan at an early age. After marriage, she becomes pregnant at early age. In spite of doctor's advice to not to give birth of child, Ramdulari's mother in law performs this task with the help of 'Dai' (untrained health worker in village). Ramdulari and her child both die.
In the end of this story, impact of early marriage on development of girl was explained with the help of a plant. Here, girl was compared with a plant and impact of early marriage on physical and physiological health of girl child was explained.

3. **Title of the story:** Ramsakhi ki shadi (Marriage of Ramsakhi)

Theme of the story: Right age of marriage and skill development of girls

Characters of story: Ramsakhi, Ramsingh, Ramu (Ramsakhi's father), Rameshwari (Ramsakhi's mother), Meera Didi

Summary – Hindi:
यह कहानी है रामसखी की ! रामसखी की उम्र सोलह साल है । उसके पिता उसकी शादी अठारह साल के रामसिंह से तय कर देते हैं । रामसखी गाँव की डॉक्टर दीदी मीरा, जो एक समाज सेविका भी हैं, की मदद लेती है मीरा दीदी उसके माता पिता को व उसके होने वाले पति को कम उम्र में विवाह के परिणाम व स्वंय सहायता समूह के बारे में समझाती हैं और रामसखी की शादी दो साल के लिए रूक जाती हैं ।

English:
This is a story of Ramsakhi. Ramsakhi is sixteen years old. Her father fixes her marriage with eighteen years old Ramsingh. Ramsakhi asks for help to Meera didi. She is a doctor and a social worker. She talks to her parents and would be husband. She tells them about the consequences of early marriage and self help group to make Ramsakhi empower. She becomes success to stop Ramsakhi's marriage for two years.

4. **Title of the story:** Chhota pariwar swastha pariwar

Theme of story: Contraception

Characters of story: Ramdulari, Ramanand, Meera didi

Summary - Hindi:

यह कहानी रामटेकडी गाँव की रामदुलारी की है। आज, रामदुलारी दुबारा सरकारी अस्पताल जाती है वह पाँचवी बार गर्भवती है डॉक्टर उससे कहती है क्योंकि वह बहुत कमजोर है तो इस बात का ख्याल रहे कि वह आगे गर्भवती न होने पाये। तब मीरा दीदी उसे परिवार नियोजन की सलाह देती हैं तब रामदुलारी उन्हें बताती है कि उसका पति इसके लिए राजी नही होता छह महीने पहले उसने पति को बिना बताये गोलियाँ ली कमजोर होने की वजह से उसे परेशानी हुयी पर वह पति को बता नही पायी। तब मीरा दीदी उसे अपने पति को परिवार नियोजन की जरूरत, महत्व और उसकी परिवार की तरफ जिम्मेदारी को समझाने के लिए कहती है अगली बार रामदुलारी अपने पति के साथ परिवार नियोजन के लिए आती है ।

English:

This is story of Ramdulari in Ramtakdi village. Today, Ramdulari again go to government hospital, as she is again pregnant for her fifth child. She is very weak, cannot give birth to child. So, doctor gives her advice not to conceive next time. Meera didi (ASHA) suggests her to use contraceptives. Ramdulari tells her that, firstly, her husband do not agree to use contraceptives, secondly, before last six months she started to use it without telling her husband, she had some problem due to weakness. But she could not share it with husband. Then, Meera didi explains her importance and need of contraceptives and responsibility of husband to use it for taking care for wife and family. Then, Meera didi asks her to talk with her husband. Next time, Ramdulari and her husband come to hospital for contraception.

5. **Title of the story:** Masikdharm – Jaroori hai sawachhta

Theme of story: Hygiene during menstruation

Characters of story: Meera didi, Rammurti, Ramkesari and other village women

Summary - Hindi:

यह कहानी रामटेकडी गाँव की है। जहाँ, मीरा दीदी गाँव की ए एन एम हैं जो एक सामाजिक कार्यकर्ता भी हैं वह गाँव में हर महीने 'ग्राम स्वास्थ्य दिवस' पर आँगनबाडीकेन्द्र में महिलाओं के बीच मीटिंग करने आती हैं जिसमें वह महिलाअें के स्वास्थ्य पर चर्चा करती हैं। आज भी हमेशा की तरह आँगनबाडी केन्द्र पर मीटिंग है। आज की चर्चा का विषय है मासिक धर्म व मासिक धर्म के समय सफाई का ध्यान रखना।

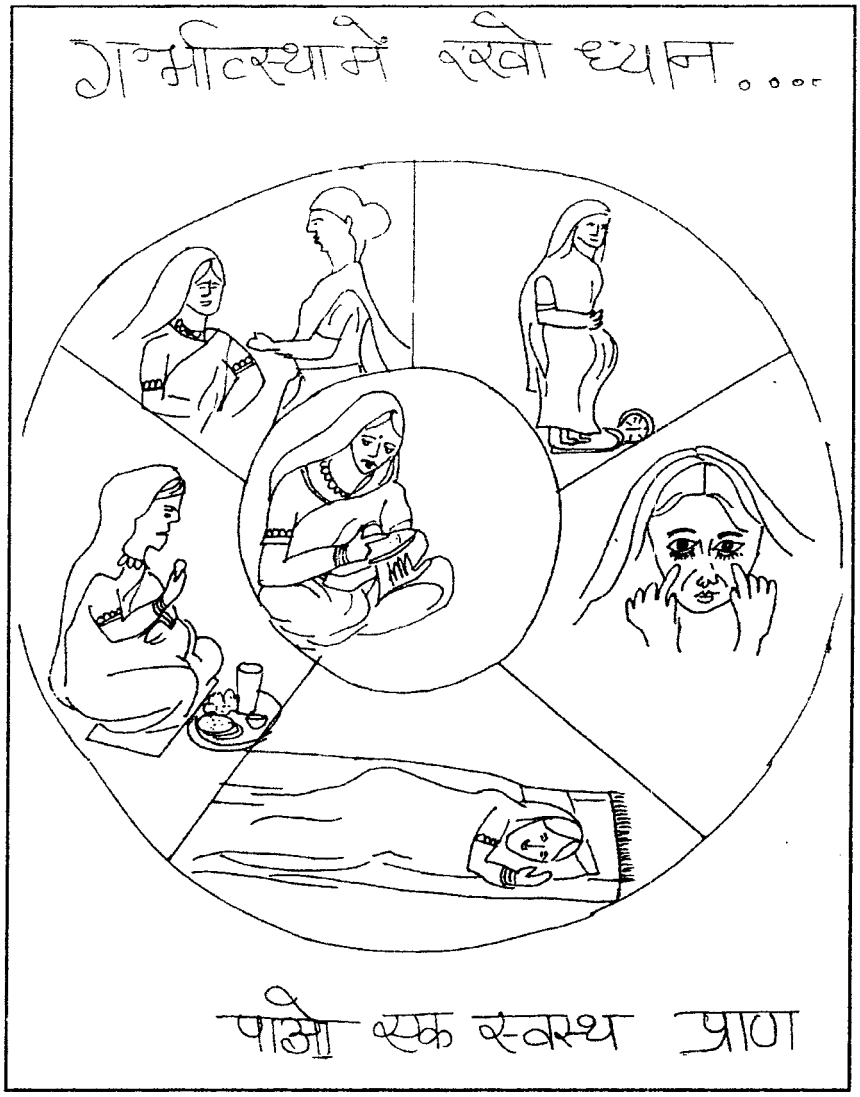
English:

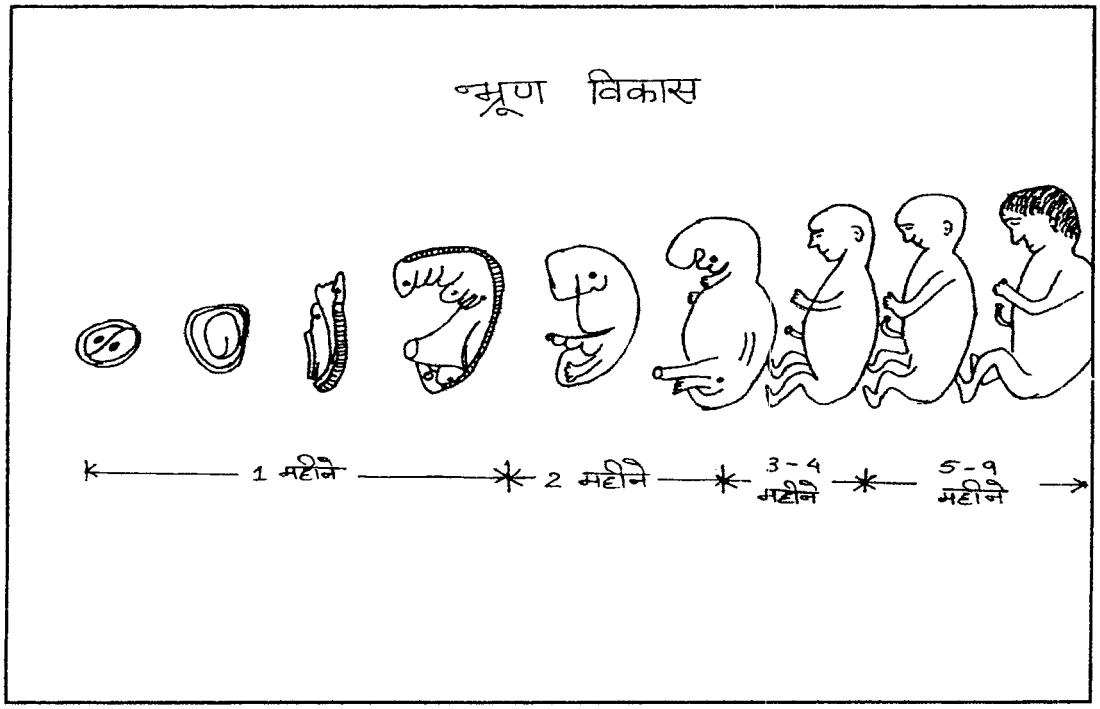
This is story of Village Ramtakdi. Where, Meera didi is an ANM. She is social worker also. She conducts meeting at ever month on 'Village Health day' among women. In these meetings, she discusses different health issues among women. There is a meeting today also at Anganwadi center. Today's topic of discussion is menstruation and hygiene during menstruation.

ANNEXURE IV B

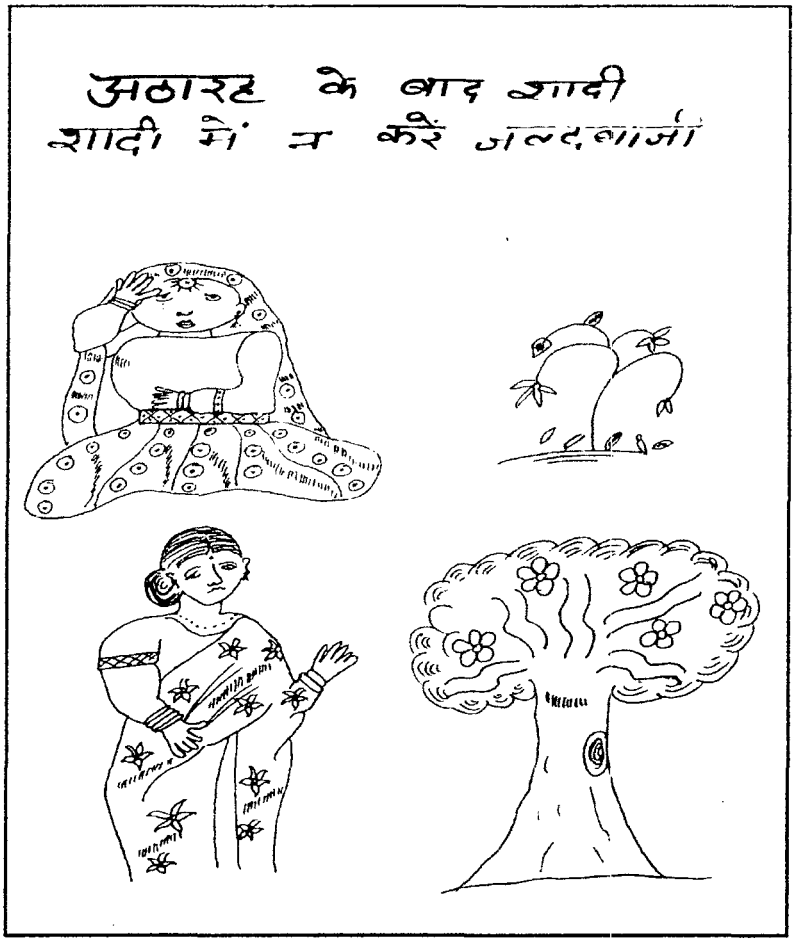
Pictorial presentation of IEC aids

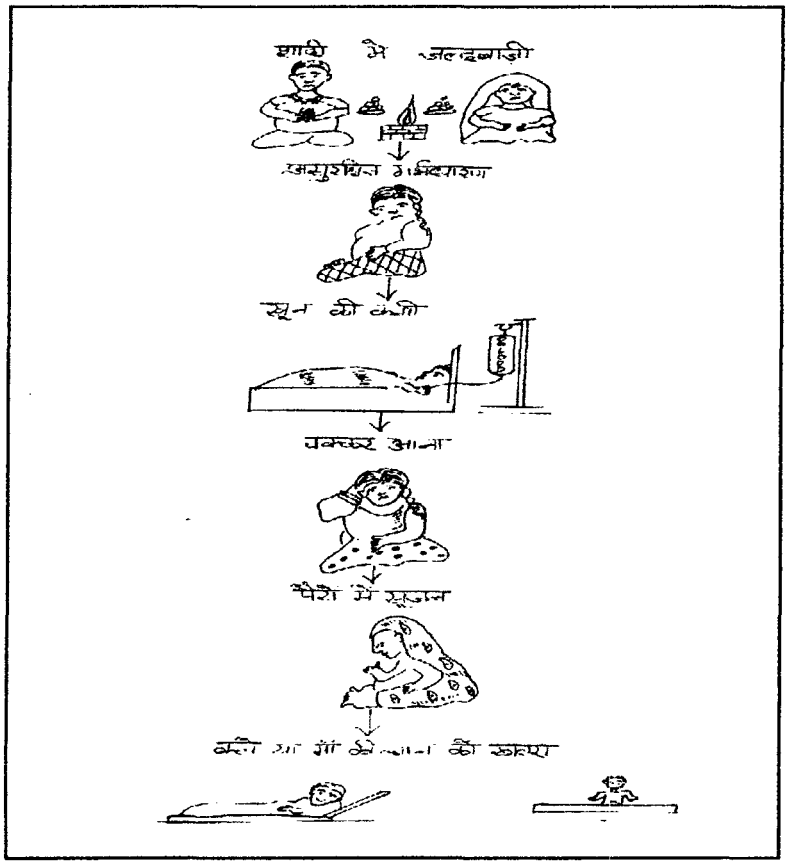
Flip book: Healthy mother healthy baby



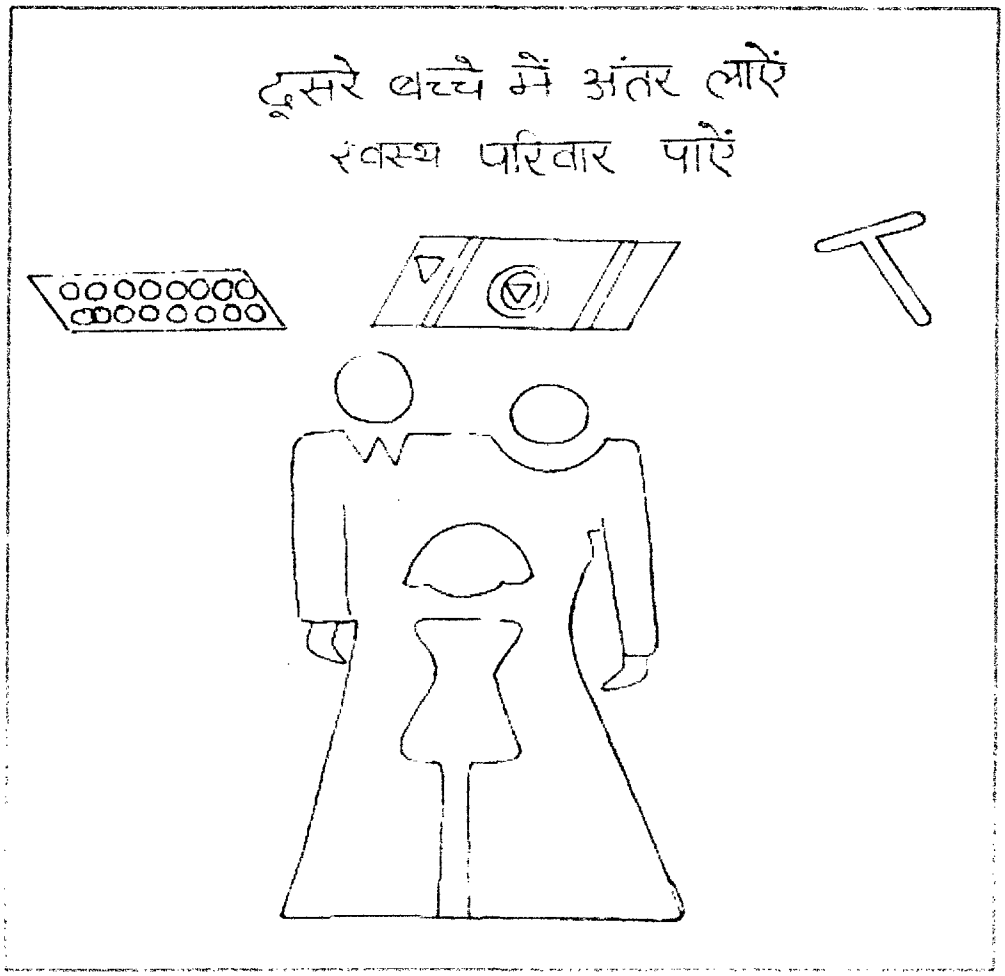


Posters: Take care in pregnancy – get a healthy life and Foetal development

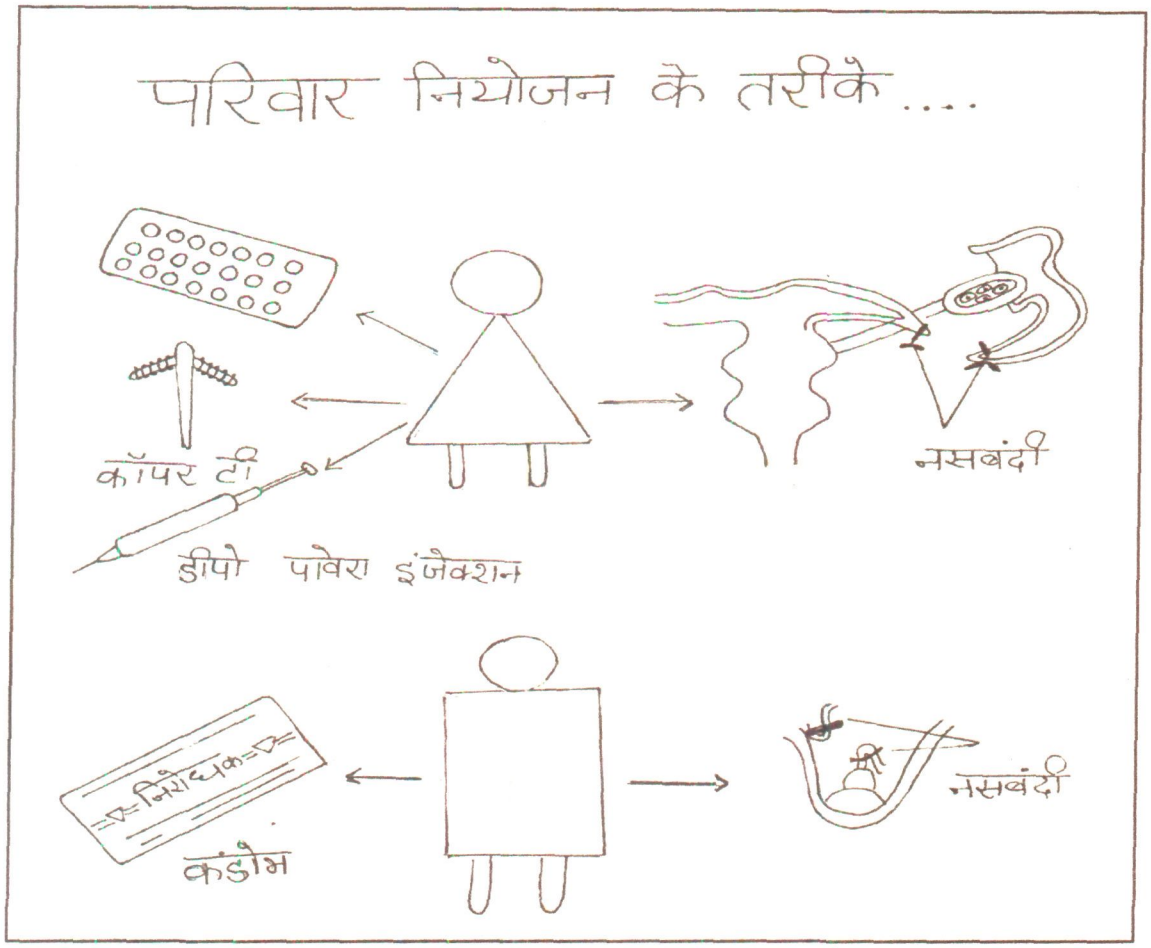




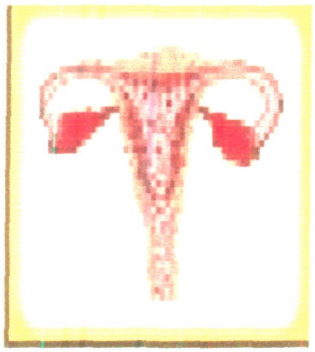
Poster and Flow Chart : Marriage after eighteen not be early



Posters : Either girl or boy – Family must be small,
Doosre bachhe me antar laye – Swasth pariwar payen

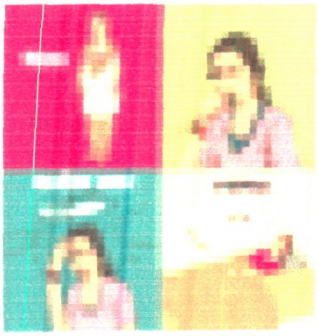


Poster : Contraceptives



Colour TV on menstruation

String game on menstruation



Puzzle on menstruation

Paper folding on abortion

Games

ANNEXURE VA

कार्यालय जिला अधिकारी, अलीगढ़।

पत्रांक: /67 /एस0टी0 दिनांक : 12-02-2009

खण्ड विकास अधिकारी,
जवां ।

कृपया कु0 तनूजा दार्ष्णेय आदि रिसर्च स्कालर ए0एम0यू, अलीगढ़ के सलग्न पत्र का अवलोकन करें । यह आपके विकास खण्ड के ग्राम में भ्रमण कर जानकारी करेगी । आप कृपया स्वंय इन्हें आवश्यक जानकारी उपलब्ध करादें एवं सबंधित गांव में जिसमें जाकर यह जानकारी करना चाहें उस ग्राम के प्रधान को आवश्यक सहयोग करने हेतु सूचित कर दें ।

सलग्नक:- उपरोक्तानुसार ।

(के0 राम मोहन राव)
जिलाधिकारी,
अलीगढ़ ।

ANNEXURE V B

कार्यालय खण्ड विकास अधिकारी जवॉ अलीगढ।

पत्रांक / 08-09 / जी0 सी0 / दिनांक 19-02-2009

समस्त ग्राम प्रधान/ग्राम पचायत अधिकारी

विकास खण्ड जवॉ अलीगढ।

जिलाधिकारी महोदय अलीगढ के कार्यालय पत्रांक 167/एस0टी0/ दिनांक 12-02-2009 के द्वारा **कुमारी तनूजा वार्ष्णेय, कुमारी गौरी पाण्डेय,कुमारी फरहत जहॉ** रिसर्च स्कालर,ए0एम0यू0 द्वारा आप के ग्राम मे भ्रमण करेगी, इनको आपके ग्राम के बारे मे जानकारी चाहिये।

कृपया आप अपने स्तर से पूर्ण सहयोग कर इनको चाही गयी जानकारियो को उपलब्ध करा दे।

खण्ड विकास अधिकारी

जवॉ अलीगढ।

प्रतिलिपि- 1- कुमारी तनूजा वार्ष्णेय रिसर्च स्कालर ए0एम0यू अलीगढ।

2 कुमारी गौरी पाण्डेय रिसर्च स्कालर ए0एम0यू अलीगढ।

3 कुमारी फरहत जहॉ रिसर्च स्कालर ए0एम0यू अलीगढ।

4 जिलाधिकारी महोदय अलीगढ की सेवा मे सादर अवलोकनार्थ प्रेषित।

खण्ड विकास अधिकारी

जवॉ अलीगढ।

ANNEXURE V C

Through Chief Medical Officer, Aligarh

To,
Medical officer,
CHC/PHC Jawan Block,
Aligarh District

Subject: To avail information about the role of CHC / PHC in women's health in Jawan Block.

Dear Sir,

I would like to say that I am a research scholar pursuing research in Dept. of Home Science, AMU on "Assessment of Awareness and Impact Study of IEC Aids regarding gender health inequity among women of Jawan block, Aligarh District." It also includes the role of PHC in regards to women's health. My work can not be carried out effectively without your and other health functionaries' help.

So, I kindly request to you for helping me in doing the same. I would be very grateful to you.

Thanking you

Dated:
26 February 2009

Yours faithfully

Tanuja Varshney
Research Scholar
Dept. of Home Science
Aligarh Muslim University
Aligarh-202002 (India).

ANNEXURE VI

Measuring weight of woman

Implementation of IEC

Implementation of IEC